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ABSTRACT

The purpose of the conference reported in this document was to promote the professional sharing of current educational issues, provide a forum for dialogue concerning relevant educational topics, and share faculty research interests. The presentations are: (1) "Videotape Production: A Technological Form of Educational Research" (Linda Good); (2) "Science and Mathematics Mentors and Teachers in a Professional Development Center School Project" (Paul Otto); (3) "Elementary School Portfolio Assessment in a Three State Region" (Connie Hoag); (4) "Opinions of Rural Mid-Western Superintendents toward a Statewide Report Card System" (Robert W. Wood); (5) "Should Sex Education Be Taught in the Elementary Schools" (Gary Zalud); (6) "Emerging Giant: Pacific Rim Literature for Children and Adolescents" (Lisa Spiegel and Maurine Richardson); (7) "Faculty Collaboration in Developing Competency in Preservice Training Programs through Portfolio Assessment" (Marilyn Urquhart and Lana Danielson); (8) "Teacher Beliefs and Content Knowledge: Influences on Lesson Crafting of Preservice Teachers during Geometry Instruction" (Roger Parsons); (9) "Involving Fathers of Children with Disabilities: Barriers and Facilitators" (Timothy Lillie); (10) "Measuring the Confidence and Reliability of the Conceptual Science Knowledge Base of Rural Idaho Elementary Teachers (Sandra Melchert); and (11) "Lawyers' Perceptions of Law-Related Education in South Dakota" (Lynne Roach and Sherry Feinstein). (LL)

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RESEARCH, ISSUES, AND PRACTICES

Second Annual Curriculum and Instruction Research Symposium Conference Proceedings University of South Dakota Vermillion, South Dakota

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SYMPOSIUM PREFACE

The Curriculum and Instruction Research Symposium was conducted on April 15, 1994 to promote the professional sharing of current educational issues. Other goals of this symposium included providing a forum for dialogue concerning relevant educational topics, and the sharing of faculty research interests.

This symposium report document contains a myriad of educational issues, topics and research, and is the written report reflecting the oral presentations. We believe the publication of this document will continue to serve as a forum to encourage professional dialogue and as an acknowledgment of current, relevant research in the field of education.

We gratefully acknowledge the financial support received from the School of Education to help defray the cost of the publication of the symposium events.

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September, 1994

VIDEOTAPE PRODUCTION: A TECHNOLOGICAL FORM OF EDUCATIONAL RESEARCH

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"Research is the act of seeking understanding of or perspective on a problem, concern, or area of interest." It includes design, methodology, and dissemination" (Langenbach, Vaughn, and Aagaard, 1994, p. 374). The purpose of educational research is to contribute to the knowledge base in the field of education. There are two basic accepted methods of educational research: quantitative research methods and qualitative research methods (Crowl, 1993). Quantitative research reports findings in numerical form as well as in terms of verbal description. Qualitative research reports findings are frequently textual and are used in association with a described context and can be historical in nature (Langenbach, et. al., 1994).

Technology is opening new avenues for data collection and dissemination. While many of the research methods are similar, the outcomes may be different. It is important to draw parallels to accepted practices in design and methodology and to recognize that the products of these progressive methods may result in unconventional dissemination such as through videotapes, videodiscs, or computer programs. The goal of this paper is to affirm that technology is allowing researchers to contribute to the knowledge base and report findings in novel ways. A specific study that utilizes videotaping technology will be used to demonstrate the validity of this form of research as a form of qualitative research.

FOUNDATIONS FOR RESEARCH

A researcher needs to document the need for her/his research or the significance of the study. There must be something already known about the area of the research so that related studies can form a foundational basis for the study. There must be a research question or a hypothesis to test. Variables need to be identified and defined (Crowl, 1993).

The qualitative interpretivistic research example cited in this report was concerned with developmentally appropriate practices in kindergarten education. "Interpretivistic research intends to explain the perspectives of each group whose values and behavior comprise a given educational culture" (Langenbach, et. al, 1994, p. 92). While developmentally appropriate practices in early childhood education have

been advocated by the National Association for the Education of Young Children (NAEYC) since 1987 (Bredekamp, 1987), the actual implementation of developmentally appropriate practices are not clearly understood. Both positive and negative examples of developmentally appropriate practice are stated in Developmentally Appropriate Practice in Early Childhood Programs Serving Children From Birth Through Age 8 (Bredekamp, 1987). Numerous articles and books have been published to describe these practices (Barbour and Seefeldt, 1992; Kostelnik, 1992, 1993; Walmsley, Camp, and Walmsley,1992). Developmentally appropriate practices are defined as those that are age-appropriate and individually appropriate. They involve a balance of teacher directed and student centered activities. They involve a variety of grouping patterns---from large group to small groups to individual instruction times. And developmentally appropriate practices require the integration of subject matter using hands-on activities with materials. However, both practicing teachers and pre-service teachers are still unsure how to implement them in their own classrooms. There is a need for exemplary models for teachers. NAEYC has produced some videotapes to help teachers see how these practices are implemented, However, most models of developmentally appropriate practices have been developed at the preschool level; there is a need to develop models that address kindergarten and primary education. The kindergarten video project is designed to meet the need to provide models of appropriate practice in kindergarten environments.

The research questions that would guide the videotaping are:

1. How are developmentally appropriate practices implemented in a kindergarten classroom?
2. How are these practices modeled with regards to the subject matter of kindergarten?

The variables are defined as the traditional subject matter of kindergarten---mathematics, science, reading, writing, and play---and methods that are prescribed by developmentally appropriate practice.

METHODS

Participants

Any research study needs to identify subjects and describe how they were selected to participate in the study. In perspective seeking studies, such as interpretivistic research, individuals who are studied are referred to as participants. A rationale must be given of how representative the sample of subjects is relative to the population. As in any research study that employs human subjects, attention must be given to ethical standards regarding consent to participate (Crowl, 1993).

The population to be investigated for the reported study was kindergarten teachers who employ developmentally appropriate practices. The students present in classrooms become secondary subjects. Selection of the sample was based on the following criteria: geographically, the sample must be within an 80 mile radius of the researcher's base; participants would be selected based on observations by the researcher using indicators of developmentally appropriate practice as stated in two assessment instruments (Harms and Clifford, Early Childhood Environment Rating Scale and Abbott-Shim and Sibley, Assessment Profile for Early Childhood Programs); the sample would represent both public and private schools; schools would be located in both urban and rural areas; and at least one of the schools would have an obvious multicultural student population. After observing 18 different teachers in their classrooms in 12 communities within the specified geographical limitations, five teachers (n=5) were selected as participants. Two of the teachers and associated classrooms were located in Iowa; three of the teachers and associated classrooms were located in South Dakota. Two of the teachers worked in parochial schools; three of the teachers worked in public schools. Three of the teachers worked in urban areas where multiple kindergarten teachers were employed. Two of the teachers worked in towns where they were one of four teachers employed at the kindergarten level. The ethnicity of the students in one of the classrooms represented a multicultural perspective that included Afro-American students, Mexican-American students, Native American students, and caucasian students. Socio-economic status of the students was not considered, since no individual measures would be obtained.

The research proposal was reviewed by the Human Subjects Committee at the university. Releases for participation were obtained from the five participating teachers and the parents of the children in the classrooms. Permission to videotape one child was denied, so that child was placed in another kindergarten room during the videotaping. Additionally, release forms were obtained from building principals and school district curriculum coordinators or superintendents. Teachers and schools were identified on the final edited videotapes, but children were not individually identified.

Materials

It is typical to list materials used in research studies. The materials required for this study included the following: a super VHS camcorder, a tripod, an extension cord, camcorder batteries, super VHS videotapes, an individual microphone, a 35 mm camera and film, and an interview protocol. The interview protocol consisted of 19 questions that related to philosophy of teaching, methods employed to teach the subjects of kindergarten education, classroom management techniques, and descriptions of the kindergarten program. Following data collection (via videotape), videoediting equipment that included a videotoaster and an Elmo were used to group data.

Procedures

It is important to design the research such that research questions are answered (Crowl, 1993). "Qualitative studies attempt to describe events or discern patterns of behavior exhibited by an individual or group" (Crowl, 1993, p. 7). Interpretivistic research is a form of ethnographic qualitative research that often uses methods of observations and interviews. "Ethnographers are expected to record observations in as detailed and concrete a manner as possible" (Jacob, 1987, p. 15). Videotape recordings permit accurate visual and auditory records of observations.

Data was collected by observation (through the lens of a videocamera) and teacher/subject interview (recorded on videotape). Each teacher was videotaped twice for a full kindergarten day in her classroom.

Each teacher was interviewed using an interview protocol that was designed to explore each teacher's philosophy and elicit verbal descriptions of practices related to each of the identified subject areas.

Trustworthiness in naturalistic research is the determination that the data are consistent, credible, transferable, dependable, and confirmable. Triangulation was used as a way to confirm the study's findings---that is, more than three independent sources were used to verify the trustworthiness of the qualitative data (Langenbach, et.al, 1994) since five teachers were observed and interviewed and there was similarity to their beliefs and practices. They served as credible models because their methods were demonstrated to be successful in real classrooms with children. By seeing the video images, the practices could be transferred to others.

RESULTS

The analysis of results of descriptive research is dependent on researcher coding. Coding is dependent on dividing observations into units (Jacob, 1987). Results are then reported in a narrative format. The analysis of the videotaped observations was dependent on the videoediting process. The videoediting process consists of several steps in organizing the data. First each completed videotape is timecoded. Then each tape is logged so that units can be located on the tapes. Logging requires not only identifying where a visual unit is on the videotape but also where audio units are. Then the planning process of gross editing must begin to sequence audio and visual units together to create the whole of a set of data. The final phase is the editing phase and it consists of titling, writing an introductory script, planning for transitions within the videotape, final editing, and identifying the credits. Once an end product is produced, supplementary materials such as handbooks may be developed to accompany each completed product. As in a qualitative research project, the results of this video project were reported in narrative form ---only the narrative form was in an auditory/visual format rather than in a written format. The accompanying handbooks that were developed presented results in a written form that allowed the viewer to outline what was presented on the videotape.

DISCUSSION

Within the discussion section of traditional research, the author relates the study's findings to existing literature, points out limitations, and comments on any practical implications that the study has (Crowl, 1993). The videotapes in and of themselves do not meet this criteria. However, it is expected that teacher educators who would use these videos would spend time with students discussing these factors. For example, a teacher educator might relate what was viewed on the videotapes to journal articles that students might be required to read or to textbook chapters. Obviously, the videotapes are limited to only showing a sampling of each kindergarten subject rather than an academic year's worth of modeling. The practical implications of the videotapes were that they showed positive examples of exemplary teachers as each teacher implemented developmentally appropriate practices in her own way. A handbook that accompanies each video as a supplemental material could provide discussion topics.

DISSEMINATION

One of the requirements of research is dissemination. Typically research is disseminated through publication in a journal or presentation at a conference. Dissemination of videotaped research can be accomplished by the producer showing the videotapes in classrooms and at conferences or by contracting with a distributor to market the videotapes.

CONCLUSION

Videotape production research is a form of research because it involves the elements of research---design, methodology, and dissemination. Videotape production research is qualitative research in which findings are reported in a narrative form; the presentation of that narrative is in an audio-visual format. This particular cited study used an interpretivistic ethnographic approach because five kindergarten teachers demonstrated and verbally described their values and behaviors related to developmentally appropriate practices. Raw footage was analyzed into units so that the final reports were five videotapes that addressed how developmentally appropriate practices were implemented to teach

mathematics, science, reading, writing, and play in kindergarten.

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SCIENCE AND MATHEMATICS MENTORS AND TEACHERS IN A PROFESSIONAL DEVELOPMENT CENTER SCHOOL PROJECT

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Mentoring usually involves an upper level organizational person who attempts to enhance the career development of an entry level person. The individual assuming the mentoring role is referred to as "mentor" (Alleman, 1982). There appears to be universal agreement that the Term "mentor" originated from Homer's poem The Odyssey in which Odysseus left to fight in the Trojan War while relegating to his trusted friend "Mentor" the charge of caring for and educating his son Telemachus (ATE, 1990; SUNY Series, 1992; Leonard Lund, 1992; Daloz 1986).

Mentoring is generally considered to be a one to one correspondence between the mentor and the mentee, but it is not uncommon for a mentor to assume responsibility for more than one person and in some cases an entire team of multiple persons. Mentoring programs differ in approaches, ranging from those of single purpose to those of multifaceted. The goals of mentoring extend over the gambit of career guidance, developmental needs, social behavior improvement, developmental needs, cultural and intellectual levels, to the enhancement of learning. Lund (1992) states that mentoring programs "range from one-shot career guidance efforts to extended relationships that fall just short of child adoption."

Mentoring is not to be confused with "tutoring", although tutoring may well be involved with mentoring. Lund (1992), summarizes that "A person can tutor many students at different times and a student can have several different tutors for different subjects, while mentoring is usually a very personal one-to-one commitment.

Characteristics of mentoring which have appeal to schools as well as businesses appear in Marc Freedman's (1991) study :

> First, mentoring appears *simple*. The 'one to one' concept takes an overwhelming set of social problems, such as poverty, and makes them comprehensible by focusing on the needs of a single youngster.
>
> Second, mentoring is *direct*. Mentoring simultaneously satisfies a sense of urgency and a desire to cut through red tape to help youth directly.

Mentoring's third appeal...mentoring is *cheap*, a low-cost alternative to public services.

Fourth, mentoring is a highly *sympathetic* notion. Being dubbed a 'mentor' is neither neutral nor objective, like 'tutor' or 'volunteer.'

Fifth, mentoring is seen as *legitimate*.. It is a sanctioned role for unrelated adults to play in the lives of youth.

And finally, mentoring is *flexible*, accommodating whatever attributes people want to give it. Nearly everyone can find something to like in mentoring.

There appear to be a number of programs which are designed to meet the needs of beginning teachers, by assigning older colleagues from within the system, who carry out mentoring activities above their normal teaching load. Others involve business and industry in providing mentorship to teachers in school (Lund, 1992). The model adopted by the University of South Dakota, is one which involves the freeing of a teacher of his or her regular teaching duties to function as mentors to first-year Professional Development Center (PDC) Teachers. The salary of the PDC Teacher replacing the mentor is derived from one third of the salary of an open position within the system. The remaining two-thirds of the open position is used to hire two more PDC Teachers who replace regular teachers who can be freed as mentors.

The PDC teachers are enrolled in graduate programs (usually at the Masters Degree level) and are enrolled in summer courses as well as academic year night courses . University faculty are involved in working with the PDC Teachers through demonstration teaching, technology infusion, and the formulation of business and industry partnerships.

The mentors are expected to devote sixty per cent of their time to mentoring the students, technology infusion, and curricular development. The remainder of their time is spent in technology development and demonstration teaching at the university. The mentors are also enrolled in advanced degree programs and take regular coursework at the

university.

During the 1993-94 academic year, the University of South Dakota became involved with the National Science Foundation (NSF) Statewide Systemic Initiative (SSI) Project consisting of nine area schools. Two of the project schools were pilot PDC schools and were linked with the NSF-SSI project. One mathematics and one science PDC Teacher position for each of the two PDC schools was budgeted into the NSF-SSI project to ensure the acquisition of mathematics and science PDC Teachers. One mathematics and one science teacher were placed in one PDC school and one mathematics teacher were placed in the high school and one science teacher were placed in the middle school of the other PDC school.

The mentors replaced by the PDC Teachers were enrolled in summer school courses in technology, instructional design, and a mentor seminar course. The PDC Teachers also took courses during the summer of 1993.

The writer was released one-half-time to serve as a consultant for the mentors and the interns. Periodic meetings were held during the fall semester to bring the mentors up to speed to carry out specific mentoring activities with the mentors. Visits to the PDC sites were made three times a week.

ASSESSMENT

A major component of the NSF-SSI project was to bring into the university classrooms, teaching methodologies developed in the school systems. During the fall semester of 1993 and the spring semester of 1994, students at the university enrolled in the elementary school and secondary school mathematics and science methods courses were released from their classes for one day to attend a workshop of science and mathematics activities conducted by the teacher members on the NSF-SSI project Steering Committee. Student written survey responses, as well as personal comments, unanimously were positive about the experiences. The students were quite positively impressed with teachers from the public schools demonstrating actual teaching of hands-on mathematics and science activities.

At least three of the PDC Teachers utilized technology in the classroom. The Mathematics PDC Teacher in one school had the students utilize the TI-82 graphing calculators on a regular basis. She had the students regularly involved with the MATH EXPLORATION TOOL KIT with a DOS platform, as well as the MAC NUMERICS in her algebra classes. The computers are located on the periphery in the classroom, enabling students to enter the solutions to their algebra problems and observe the resultant graphics. The MAC NUMERICS has polar graphing of polar equations capability and was used daily in all of the upper level mathematics classes.

The middle level PDC Teacher of science employed a laser disk program in her earth science classes on a daily basis. The laserdisk presentations provided animation of concepts and allowed for easy access and interruption for discussion of concepts. The teacher incorporated hands-on activities, but was rather limited in equipment. The writer spent several days with her in team teaching lessons utilizing hands-on activities.

The mathematics PDC Teacher in the second PDC school had his students utilize the GEOMETER SKETCHPAD once every three weeks. Its use is optional for the students who have finished their classwork on a daily basis. The computers were very convenient, being located in a contiguous room. He also used a LCD Pad in two periods of computer literacy class and occasionally during his computer programming class. The PDC Teacher stated that he used the computer in his teaching more than any of the other teachers in the high school building. However, he readily admitted that he was not effectively using the computers in his classes to the degree that he desired. He felt that he was gaining experience through interaction with the technology and the PDC tenure.

Three of the mentors developed community technology presentations for local industries. Two mentors worked with a sandblasting/trucking concern to develop a video presentation to enhance the firm's image and to tie in its assistance in an educational partnership. The third mentor developed a video presentation featuring a local recycling center. The objectives were to (1) apprise and encourage the community to use recycling, (2) to encourage local businesses to use the recycling center,

and (3) to involve high school students in the development of the video presentation and to learn about recycling.

During the fall of 1993, the writer and the mentors developed a form for assessing the PDC teacher growth. Each respective mentor completed the form as baseline data on October 7, 1993. Periodic assessments were made by the mentors throughout the year. The form was completed during the third week in May, 1994. Progress can be observed from the following analysis based on a scale of 1- Superior to 4 - Needs Improvement:

PDC TEACHER #1 (mathematics)	**Pre**	**Post**	**Δ**
1. ATTITUDE TOWARD WORK (five items)	5	5	0
2. ATTITUDE TOWARD STUDENTS (five items)	6	4	+2
3. SCHOLARSHIP (seven items)	15	8	+7
4. PLANNING TECHNIQUES (nine items)	16	12	+4
5. INSTRUCTIONAL ABILITIES (seven items)	18	9	+9

PDC TEACHER #2 (MATHEMATICS)			
1. ATTITUDE TOWARD WORK (five items)	11	16	- 5
2. ATTITUDE TOWARD STUDENTS (four items)	10	8	+2
3. SCHOLARSHIP (seven items)	22	22	0
4. PLANNING TECHNIQUES (nine items)	35	30	+5
5. INSTRUCTIONAL ABILITIES (seven items)	23	23	0

PDC TEACHER #1 (SCIENCE)			
1. ATTITUDE TOWARD WORK (five) items	5	7	- 2
2. ATTITUDE TOWARD STUDENTS (four items)	9	8	+1
3. SCHOLARSHIP (seven items)	14	12	+2
4. PLANNING TECHNIQUES (nine items)	19	17	+2
5. INSTRUCTIONAL ABILITIES (seven items)	16	16	0

PDC TEACHER #2 (SCIENCE)			
1. ATTITUDE TOWARD WORK (five Items)	13	14	- 1
2. ATTITUDE TOWARD STUDENTS (four items)	10	11	- 1

3. SCHOLARSHIP (seven items)	12	10	+2
4. PLANNING TECHNIQUES (nine items)	28	30	- 2
5. INSTRUCTIONAL ABILITIES (seven items)	24	24	0

Inspection of the above data indicates positive growth for PDC Teacher number one in mathematics. The individual projected a very positive attitude toward teaching and the project. The writer worked very closely with this PDC Teacher by observing the individual's classes and holding outside of class discussions and training in classroom control. The mentor indicated positive growth and was very supportive of the individual's teaching ability.

Mathematics PDC Teacher number two was the most progressive and perhaps the most capable of the four. This individual had excellent rapport with the students, was creative, open, and quite innovative, especially in the area of adapting computers to teaching. The PDC Teacher was a very independent individual and a free thinker. Toward the end of the teaching tenure, it became apparent that the individual's teaching style and personality were not commensurate with those of the mentor. In a written evaluation during April, the mentor indicated a reversal in the appraisal of the PDC Teacher, much to the surprise of the writer. Up until that time, the mentor expressed mainly praises for the teacher. It appeared to be a teaching style and personality conflict with concerns being expressed such as not following the textbook closely enough. This writer became quite impressed with the PDC Teacher in using every day experiences, such as automobile loan amortization sheets, instead of using sterile textbook examples. The PDC teacher was hired for a mathematics teaching position by another school district very shortly after the end of the school year.

The science PDC Teacher number one had excellent rapport with the students, was very orderly and business-like in teaching, and was viewed very positively by the mentor and the central administration. The writer was involved on an occasional basis in team teaching with this PDC Teacher. Of particular interest is the mentor's evaluation of minus two on Attitude Toward Work and zero gain in Instructional Abilities. Personal discussions with the mentor indicated extremely positive comments in these two areas during the entire school year. The mentor

had a very heavy work assignment in the district and was not able to spend as much time with the PDC Teacher as the individual would have liked. This led to some feelings of discontent by the PDC Teacher which may have affected the Mentor PDC Teacher relationship. It is this writer's observation that the PDC Teacher is an excellent teacher.

The science PDC Teacher number two had taught as a laboratory assistant at the university. The teaching style of the this individual was heavily influenced by his university experience. It appeared difficult for this individual to relate the material to the students' level and to try approaches other than the lecture method. The individual was very knowledgeable in the subject matter and had much to offer the students. Because the individual was viewed as reticent to accept the mentor's suggestions and assimilate the mentor's modeling in the classroom, the mentor diminished his input considerably during the second semester. The writer worked quite closely with the PDC Teacher during the second semester, and concentrated heavily on appropriate questioning technique, group work, and laboratory housekeeping. The mentor reported that the PDC Teacher did improve his questioning technique considerably. Through the course of the year the students became accepting of this PDC Teacher.

PDC TEACHER COMMENTS

A final summarization of perceptions was required of the PDC teachers at the end of the final university summer session. It appears that the PDC Teachers looked at their experience in a positive light. The discussion of one teacher was quite insightful and indicated the learning process involved:

> "Finding my own style of discipline was a learning experience. The people I got to see in action were basically authoritarian and when I tried to model this style it blew up in my face. I learned that the consequence method worked a lot better with my personality. I am still learning how to get students to do things my way and letting them know they have choices. --- My situation (PDC Teacher) was unique from other first year teachers because I didn't feel the isolation. ---I had colleagues who were in the PDC program that were experiencing the same

frustrations. A lot of first year teachers don't know who they can turn to for help in their content area or if they are from a rural area they might be the only one teaching their content area. My mentor was someone I could ask for help when trying to solve some problems from the assignment. I will be working toward my masters whereas other first year teachers live too far from a college to take night classes. I was also unique because my professors didn't let me teach like I was taught. They were constantly giving me NCTM Standards to read, or telling me about a new teaching strategy. Most first year teachers don't have university professors in their classroom evaluating their questioning strategies and picking up on little things like how I lifted my voice at the end of a sentence and that made me sound unsure of myself. --- mentoring is a benefit most people don't receive."

Another PDC Teacher summarized the experience in terms of the support system and the act of pedagogy:

"There is more to teaching than content. The university can teach you that. Can the university teach the other aspects of being a teacher? The PDC is on its way to doing just that. --- One of the main eye openers for many first year teachers is the amount of time needed. Time for role call, lesson planning, grading papers, personal time, and eating & sleeping. As a first year teacher these are all faced, head on, but are faced alone. Your school might have an introductory session to get your feet wet, but then you are pushed in the deep end. Sink or swim. Pass or fail. What is wrong with this picture is that it could be avoided. As a PDC Teacher you are rarely alone. You are part of a team.

The members of your PDC team are not saying, "Yeah, I had the same problem in 1953 when I started teaching." As a team, you face the same problems as an individual. The difference is that as a team you face problems, as a team you solve problems. The purpose of the PDC is to enhance the quality of education --- In doing so, the university provides certain

benefits that a normal first year teacher does not have access to."

The positive aspects and the positive support system was iterated by a PDC teacher in the following:

--- having a mentor to talk to and support you in what you are doing is a plus to being a first year teacher. A mentor is there to help you develop a productive lesson with the use of technology, manipulatives, or both. Also, a mentor will help you with classroom discipline if you are having trouble. When first year teachers begin the school year, they are compiled with many new experiences that it is nice to have someone help you through those experiences. Along with the support of a mentor, the school staff and administration, other PDC Teachers and mentors, and USD (university) faculty have been a great benefit to me. --- Receiving my masters is a hugh accomplishment. The classes I have taken to receive my Masters have been helpful in preparing for my classes and applying to my classes. For example, I have learned many new things on a computer in which I have applied to my lessons. Also, I have applied my knowledge of some manipulatives to my classrooms. Team teaching is a concept that I learned ---."

Two goals of the PDC program were to provide experiences for the PDC Teachers in the infusion of technology and the acquisition of the state of the art teaching. One of the PDC Teachers expressed the accomplishment of these goals as follows:

"I believe the greatest advantage was having my own class. I gained insight and responsibility while gaining the reassurance that I have chosen the profession that is right for me.

I gained first hand knowledge through team teaching, micro-teaching, and demonstration teaching. My classes at the University of South Dakota were challenging and motivating. I gained new teaching strategies through Dr. _____ and Dr. _____, became a classroom researcher thanks to Dr. _____,

and added adolescents to my teaching area through Dr. _____. Several other professors and personnel were instrumental in making me a reflective decision-maker and a life-long learner.

I had access to new technology through USD (university), the National Science Foundation, and the __ School system. I am confident that I will continue to incorporate technology into my teaching.

Although all of these things are very important, for me, the most amazing part of the program was the unity. The bonding, support, caring, and love that went into making this program a personal success for each individual cannot be described. We may not have made it happen without each other. --- (It) has been much more than a means of making me a better teacher. It has made me a better person."

SUMMARIZATION

The mathematics and science Professional Development Center (PDC) Project was set up as a pilot program during the 1993-94 academic year to support a National Science Foundation Statewide Systemic Initiative project. The project was designed to promote a two-way flow of system change between two public schools and the University of South Dakota.

Four first-year PDC Teachers were employed in the two school districts, who in turn replaced four regular classroom teachers. The four classroom teachers functioned as mentors to promote state of the art demonstration teaching, the infusion of technology , curriculum development, and linking the schools with their communities.

The evaluation feedback for the PDC Teachers was quite positive. All of them stated that they would recommend the program to other potential teachers. The mentorship, the collegiality, the university support, the opportunity for advanced study, and the background in technology transfer were all cited as positives about the program.

Because this writer functioned as a half-time consultant, certain

impressions come to the forefront. The mentor program is an excellent concept, which does not need further elaboration. The testimony of the PDC Teachers makes the case quite well. One aspect, however, which deserves consideration, is the importance of providing the mentors with appropriate background in mentoring. The literature is replete with statements advocating that an excellent teacher does not automatically make an excellent supervisor. The mentors need skills in mentoring, in technical teaching strategies, classroom management theories, and most of all, in time management. Teachers who have been functioning under highly structured classroom schedules are at loss as how to manage their time, once they are on their own to mentor. The school principals also need to be an integral part of the program. If the principal is not part of the program, and worst of all, does not understand the goals and objectives of the program, he/she cannot be expected to be supportive of it. Clear definitions of job descriptions need to be laid out. Mentors need to complete a weekly schedule of planned activities and these need to be filed with the principal. Individual follow-up conferences need to be held at least on a bi-weekly basis between the mentors and the principal to aid the mentor in maintaining a sense of accomplishment.

The PDC/mentor concept is an exciting idea. It can be fraught with many frustrations. A capacity for ambiguity can be a real asset during the first year. The implementation of an appropriate formative model, with a willingness to learn from the experience, can make the PDC/mentor concept one of the finest programs, with a genuine step in the direction of professionalism.

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ELEMENTARY SCHOOL PORTFOLIO ASSESSMENT IN A THREE STATE REGION

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INTRODUCTION

Open almost any education related journal these days and one is likely to find at least one article discussing portfolio assessment. Although the use of portfolios is not a new concept, artists have used them for years and in certain subject areas such as writing (Graves, 1983) portfolios have long been advocated, the widespread call or portfolio assessment is a more recent phenomenon (Adams & Hamm, 1992; Knight, 1992).

Several reasons for the popularity of portfolio assessment may exist. Standardized tests, for example, have been criticized in that they do not assist classroom teachers very much (Johnston, 1992). Additionally, educators are seeking ways to assist students to become more self critical and reflective in a formative assessment model (Valeri-Gold, Olson & Denning, 1992). Portfolios are said to combine assessment and instruction in such a way that the result is more than the sum of the parts (Paulson, Paulson & Meyer, 1991).

Even though portfolio assessment is popular, it is not without serious criticism. Authentic assessment, or portfolio assessment, has not been proven to be better than multiple choice tests (Hambelton & Murphy, 1992). Additionally, the cost of authentic assessment may exceed the cost of traditional forms of assessment; indirect tests (pen and paper) may measure performance as well as direct measurements (authentic tasks); and traditional tests may be more reliable and more valid than authentic measurements (Cizek, 1991).

Currently schools in many states are involved in restructuring or reforming activities. One of the focuses of these movements is to evaluate the assessment processes that are in place. Because portfolio assessment has been so widely popularized and because very serious criticisms of authentic assessment have also been stated, the investigators decided to survey principals of elementary schools in the three state region with regard to their opinions about the use and future of portfolios in the assessment process.

RESEARCH PROCEDURES

A postcard questionnaire consisting of six questions and space for personal opinions about the use of portfolio assessment in elementary schools was constructed by the investigators in order to ascertain the opinions of elementary school principals toward the portfolio assessment issue. The population for the study was the total number of elementary school principals in the states of Iowa, Nebraska, and South Dakota. By using a table of random numbers, 100 elementary schools from Iowa, Nebraska, and South Dakota were selected for a total sample size of 300 elementary school schools. Each principal of the 300 schools was the sample for this study.

During May, 1993, the elementary school principals were mailed the postcard questionnaire. Fifty-eight percent, or 174 questionnaires, were returned for analysis. Each questionnaire was coded so the investigators could classify them according to state location. Sixty-six questionnaires from elementary principals in Iowa were returned, 45 from Nebraska, and 63 returned from South Dakota.

After the information was received, percentages or total response tabulations were calculated for each of the six questions. Specific comments made by the respondents were also recorded.

FINDINGS

The first survey question asked the principals' opinion about using portfolio assessment in the elementary schools. Thirty-seven percent were mildly favorable about using portfolio assessment. Thirty-six percent were very favorable and 18 percent were favorable toward the use of portfolio assessment in the elementary schools. A total of 5 percent were mildly and very unfavorable toward portfolio assessment.

The second question asked the principals to indicate their teachers' responses to portfolio assessment. Forty percent of the principals believed their teachers were favorable toward the use of portfolio assessment. Another 32 percent felt teachers would be mildly favorable and 7 percent believed the teachers would be very favorable. Fourteen

percent believed teachers would be mildly unfavorable and 2 percent thought teachers would be very unfavorable toward portfolio assessment.

Other than standardized tests, what types of assessments do elementary teachers use in classrooms was the third question asked of the elementary school principals. The most frequently type of assessment was teacher observations, teacher made tests was second followed, in third place by Individual Education Plans, portfolios were fourth, with peer review in fifth position. Other types of assessment procedures were identified and fall in the sixth position according to the principals.

The fourth question asked what types of training have the faculty received in use of portfolios. Workshops were reported as the most common type of portfolio training received by the teachers. Inservice programs was second followed by college courses in third place.

Question five asked the percentage of the present assessment program that is filled by portfolios. Thirty- eight percent of the principals stated that Zero percent is filled with portfolios. Thirty-nine percent stated 25 percent of the assessment program is filled with portfolios. Eight percent stated 50 percent, 4 percent said 75 percent, and 1 percent stated 100 percent. Seven percent of the principals gave different percentages ranging from 1-10 percent.

The sixth and final survey question asked if portfolio assessment would have an effect on student achievement in the next five years. Twenty-four percent stated that portfolio assessment would be highly effective, 35 percent mildly effective, and 29 percent thought it would be effective. Six percent of the principals though portfolios would be mildly ineffective and 2 percent though highly ineffective.

COMMENTS

Thoughts about portfolio assessment was requested of each elementary school principal. Comments accompanying the survey were many and varied. Typical comments follow.

Is this going to be just another trend or will it stay and be good for

Kids?

Our district is just beginning to train teachers in using portfolios. It is one of many assessment tools we are planning to use.

If properly done it will be great. Needs much inservice.

I believe that portfolios can "show" parents and students the application of skills holistically and the progress

Too time consuming and lack of uniform standards.

I don't know if older teachers will pick up on this. Numbers are easier.

It will give parents a better view of their child's successes and failures.

I don't know enough about it to judge.

We need to use alternative ways of assessing.

What is portfolio assessment??

Portfolio assessment is one assessment tool to be used in combination with others.

We have used portfolio assessment for 5 years. Why are other schools taking so long to join us?

Right now we don't have the storage space for the various student portfolios.

Throughout the entire questionnaire section dealing with comments, there was a trend dealing with the idea of using portfolio assessment as part of the total assessment program. In general, it appears to the investigators that portfolio assessment was viewed in a positive light by administrators. However, many administrators indicated concern by

commenting about the time involved in portfolio assessment and the need for lots of inservice education.

The favorable comments far out weighed the negative comments regarding portfolio assessment. Administrators also viewed portfolio assessment as a step in creating an assessment program that would give students and parents a more true picture of what is being achieved in school. It is noted, however, that a number of administrators did not understand the concept of portfolio assessment.

CONCLUSIONS

Ninety-one percent of the elementary school principals surveyed held favorable opinions toward using portfolio assessment in their schools. The principals' opinions of how teachers feel about portfolio assessment was also favorable. Seventy-nine percent of the principals believed teachers feel favorable toward the use of portfolio assessment. With such favorable opinions toward portfolios, it would seem that portfolio assessment will likely be implemented into the elementary schools of Iowa, Nebraska, and South Dakota without much unfavorable opposition.

It was no great surprise to see what types of assessment, other than standardized tests, were used in the schools. Teacher observations and teacher made tests were the two most commonly used assessment procedures. The use of Individual Education Plans was the third most used assessment procedure. This too was not surprising to the investigators as this assessment procedure is mandated by law for many students.

The types of portfolio training received by teachers was what the investigators expected. Workshop, inservice education, and college courses were the most frequently stated types of training. To be able to utilize portfolios effectively takes education and time. Therefore, if teachers are to be effectively trained in portfolio usage, workshops and inservice sessions must continue to be offered that provide appropriate amounts of time covering key components of portfolio assessment.

Thirty-nine percent of the assessment programs in the elementary

schools in this study were constituted by portfolio usage. This is to be expected as traditional types of assessment procedures have dominated the assessment field for years.

The most significant finding of this study was that 88 percent of the elementary principals believed that portfolio assessment will be "effective to highly effective" in influencing student achievement in the next five years. This being the case, it should be the goal for elementary principals to provide as much support possible to influence the usage of portfolio assessment in the elementary schools.

In reviewing and analyzing the data and comments, it appears that principals and teachers are favorable toward portfolio assessment; portfolios are becoming a part of the total assessment program; teachers have been receiving training in portfolio assessment; and, principals believe portfolio assessment will have an effective on student achievement in the next five years.

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Table 1.

Principals' Opinions Toward Using Portfolio Assessment

	Iowa	Nebraska	South Dakota	Total
Very Favorable	40%	25%	42%	36%
Mildly Favorable	42%	40%	30%	37%
Favorable	11%	20%	24%	18%
Mildly Unfavorable	5%	4%	0%	3%
Very Unfavorable	0%	4%	2%	2%
No Response	2%	7%	2%	4%

Table 2.

Principals' Opinions of How Teachers Feel About Portfolio Assessment

	Iowa	Nebraska	South Dakota	Total
Very Favorable	14%	2%	6%	7%
Mildly Favorable	45%	29%	22%	32%
Favorable	27%	40%	53%	40%
Mildly Unfavorable	11%	22%	10%	14%
Very Unfavorable	0%	2%	3%	2%
No Response	3%	5%	6%	5%

Table 3.

Types of Assessment Procedures Used Other Than Standardized Tests

	Iowa	Nebraska	South Dakota	Total
Peer Review	18	6	11	35
Portfolios	41	17	27	85
Teacher Made Tests	60	35	59	154
Individual Education Plan	53	39	51	143
Teacher Observations	60	41	59	160
Other	11	5	12	28
No Response	0	1	1	2

Table 4.
Types of Portfolio Training Received by Teachers

	Iowa	Nebraska	South Dakota	Total
Workshops	46	18	17	109
Inservice	36	14	17	67
College Courses	9	7	7	23
Other	9	3	6	18
No Response	7	15	27	49

Table 5.

Proportion of Assessment Program Constituted by Portfolios

	Iowa	Nebraska	South Dakota	Total
0%	23%	48%	44%	38%
25%	47%	38%	33%	39%
50%	15%	4%	7%	8%
75%	6%	0%	5%	4%
100%	0%	0%	2%	1%
Other	7%	6%	7%	7%
No Response	3%	4%	2%	3%

Table 6.

Perception of Portfolio Assessment Effects on Student Achievement in the Next Five Years

	Iowa	Nebraska	South Dakota	Total
Highly Effective	26%	18%	27%	24%
Mildly Effective	36%	33%	35%	35%
Effective	30%	27%	29%	29%
Mildly Ineffective	4%	9%	6%	6%
Highly Ineffective	2%	4%	0%	2%
No Response	2%	9%	3%	

OPINIONS OF RURAL MID-WESTERN SUPERINTENDENTS TOWARD A STATEWIDE REPORT CARD SYSTEM

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INTRODUCTION

Over 250 million standardized tests are administered to students in American schools each year (Ysselldyke & Algozzine, 1982). Reasons for testing are usually linked to larger issues of assessment. Assessment involves collecting information in order to specify strengths and limitations and to make decisions.

With regard to individuals, students are frequently tested as part of the process of assessment to determine entrance into programs or colleges. Sometimes, students are tested to determine membership into legally defined classes -- like gifted and talented or, perhaps, learning disabled. Tests are also used to compare an individual's standing to a reference population. For example, a student may be at the 78th percentile with regard to second grade reading performance.

In each situation described above, a specific question helped t narrow the scope of testing. Tests specifically designed for use to address each question would have been selected on the basis of how well they addressed the question. Even so, most people involved in the assessment process would argue that the tests used have identifiable strengths and limitations that have to be considered int he total assessment picture. Issues would likely be raised with regard to how well the tests measure what they are reported to measure and to the stability of the measurements.

Recently, a great deal of public focus has been placed on education. Political forces and "blue ribbon" panels have drawn attention to literacy issues, the changing workforce, and t he failure of American schools to adequately address the needs of a 21st century society.

As a result of the political rhetoric and published reports (A Nation At Risk, 1983; America 2000, 1991), calls have gone forth for the establishment of state wide reporting systems. Many state legislatures responded by establishing laws that require schools to assess their performance and report their findings to the public. Local papers have often carried front page headlines like "School scores drop" (Sioux Falls, South Dakota, Argus Leader, 1992) or "District to respond to scores"

(Sioux Falls, South Dakota, Argus Leader, 1992). The administrators of the districts involved often then described what the scores meant -- the school's classification - gifted or learning disabled; the schools standing - compared to other schools. Also, the administrators have explained how and why they got to where they did -- what the tests really did/didn't tell. Finally, the administrators have reflected on the changes that will be made and predicted the changes that might occur before the next report card.

This trend to view schools in such a public way led to the design of a research study to investigate superintendents' opinions about the newly initiated South Dakota statewide report card system. The investigators believed that those who directly answered to the report card system would provide valuable insight into the need for and effectiveness of the system.

RESEARCH PROCEDURES

A postcard questionnaire consisting of six questions and space for personal comments about the South Dakota statewide report card system was constructed by the investigators. It was the purpose of this study to ascertain the opinions of school superintendents toward the newly initiated South Dakota statewide report card system.

The population for the study was the total number of school superintendents in South Dakota public school districts. One hundred seventy eight questionnaires were mailed out in January, 1992. Seventy four percent, or 132 questionnaires were returned for analysis.

The superintendents responded to six basic questions: (1) Do you believe South Dakota should have a report card system?, (2) Does the report card system address the pertinent issues of school accountability and student achievement?, (3) Are the categories reported (student-teacher ratio, Stanford Achievement Test scores, etc.,) valid indicators of student achievement?, (4) Will the report card system have a positive effect on student achievement over the next five years?, and (5) Will the report card system motivate parents to become more involved in the schools? A sixth question asked the superintendents to list two factors

they considered better indicators of school accountability and student achievement than those listed on the report card. Room was provided for comments from the superintendents.

Each questionnaire was coded so the investigators could classify it into school district size. size was determined by enrollment. A small school district (SSD) was identified as having 1 through 299 students in kindergarten through grade twelve; a medium school district (MSD) was identified as having 300 through 1,199 students; and a large school district (LSD), was identified as having 1,200 students or more.

Fourteen questionnaires (70 percent) were returned from large school districts 61, (87 percent) from medium school districts, and 57 (65 percent) from small school districts.

FINDINGS

The first survey question asked the superintendents if the state should have a statewide report card system. Fifty eight percent of the total respondents indicated that they did not believe South Dakota should have a statewide report card system while 35 percent thought such a system was need. Another 7 percent did not respond to the question. Responses from all categories of schools surveyed as shown in Table 1.

The second survey question asked if the statewide report card system does address the pertinent issues of school accountability and student achievement. Seventy one percent of the superintendents stated "no" to the question. Twenty one percent stated "yes", with 8 percent not responding. Table 2 reflects responses by school category.

The third survey question asked if student-teacher ratio, Stanford Achievement Test scores, etc., are valid indicators of student achievement. Sixth one percent believed that the categories were not true indicators of student achievement. Twenty eight percent believed that they were valid indicators. Eleven percent of the superintendents did not respond to the question. Table 3 indicates responses on this question by school category.

The fourth survey question asked if the report card system will have a positive effect on student achievement over the next five years. Sixty six percent of the superintendents stated "no" to the question. Twenty five percent thought it would have a "positive" effect. Nine percent of the superintendents did not respond to the question.

The fifth survey question asked if the superintendents thought the report card system would motivate parents to become more involved in the schools. Sixty two percent "did not believe" the report card would motivate the parents. thirty percent thought it "would." Eight percent of the superintendents did not respond to the question. Table 5 presents responses on this question per school category.

The sixth survey question asked the superintendents to list two factors that they consider to be better indicators of school accountability and student achievement than those factors identified for the statewide report card system. A wide variety of factors were listed such as graduate surveys and follow up on students, success after school, percentage of students going to post-secondary education, parental involvement in the schools, employment of students, etc. The most frequently stated indicator dealt with the idea of conducting surveys of graduates and determining their status in society.

COMMENTS BY SUPERINTENDENTS

A variety of comments accompanied the survey responses. The following comments reflect many points of view:

1. The big push is for Outcome Based Education (OBE), with outcomes determined locally. The report card compares achievement o outcomes determined nationally by the test makers. It also placed exaggerated importance on other factors that may or may not affect achievement in a particular district.

2. If the Division of Education is interested in Outcome Based Education, the statewide report card system issues are at complete opposite of what Outcome Based Education is trying

to do. There is too much emphasis on scores, not what a student knows or should know. Test scores and curriculum do not correlate.

3. Curricula need to be revised. Schools will teach to the tests. How does this fit with Outcome Based Education?

4. I do not believe this will improve schools - money will.

5. Disparity of dollars spent per student across the state is great. Results should not be used to compare school to school without considering factors of the population entering the schools, monetary composition of districts, etc.

6. Legislation needs to be changed to allow for a better card as it does not give the total picture.

7. The whole idea of a legislatively ordained report card is ludicrous, but politicians must play.

8. It makes sense, if there is a report card system for all legislators too.

9. Results by district on the front page of the newspapers are lived if a school does well, but some Native American schools looked terrible.

10. When districts were mandated to use a statewide testing system we were told the test would NEVER be used to compare schools.

11. Education is not an athletic event pitting one school against another. I have had chief administrators from South Dakota schools openly state their school will not only "teach to the test", but will, "teach the actual test items."

12. Schools cheat regularly by teaching to the test, allowing more than the prescribed time for answers, and not testing remedial

students.

CONCLUSIONS

The comments authored by the responding superintendents lead us to conclude that the statewide report card system is an extremely emotional issue and that the superintendents were delighted for a forum in which to share their opinions. The vast majority of the superintendents shared procedural, philosophical and professional concerns through extremely negative responses and comments about the state wide report card system. Fifty eight percent of the superintendents felt South Dakota should NOT have a statewide report card system. An overwhelming seventy one percent reported that the statewide report card system information did NOT address the issues of school credibility and student achievement. Additionally, sixty six percent of the superintendents stated opinions that this report card system would NOT have a positive education effect over the next five years.

Many issues were iterated by the superintendents concerning the conflict between the statewide report system versus outcomes based education, the statewide restructuring program, questions of local control, and parental or community misunderstandings when district scores are publicized. The superintendents felt this type of testing and the resulting comparisons were detrimental to South Dakota schools.

The alternatives to the statewide report card system that the superintendents frequently listed were Outcome Based Education and/or criterion referenced tests. Other factors listed were measurement by life skill competencies, high school graduation rates and college success.

Many questions remain unanswered. How can accountability be measured? By whom? For what purpose? These issues will be important far into the future.

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Table 1

Should South Dakota have a report card system?

Category	SSD	MSD	LSD	TSD
Yes	54%	25%	50%	35%
No	41%	65%	50%	58%
No Response	5%	10%	0%	7%

Table 2

Does the report card system address the pertinent issues of school accountability and student achievement?

Category	SSD	MSD	LSD	TSD
Yes	18%	26%	7%	21%
No	70%	70%	79%	71%
No Response	12%	4%	14%	8%

Table 3

Are categories as student-teacher ratio, SAT scores, etc., valid indicators of student achievement?

Category	SSD	MSD	LSD	TSD
Yes	30%	30%	14%	28%
No	61%	60%	72%	61%
No Response	9%	10%	14%	11%

Table 4

Will the report card system have a positive effect on student achievement over the next five years?

Category	SSD	MSD	LSD	TSD
Yes	28%	22%	29%	25%
No	64%	68%	64%	66%
No Response	8%	10%	7%	7%

Table 5

Will the report card system motivate parents to become more involved in the school?

Category	SSD	MSD	LSD	TSD
Yes	26%	28%	50%	30%
No	67%	62%	43%	62%
No Response	7%	10%	7%	8%

SHOULD SEX EDUCATION BE TAUGHT IN THE ELEMENTARY SCHOOLS

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INTRODUCTION

Schools are now addressing issues that at one time were reserved for the family or the church. Sex education is one of the issues that schools are teaching and has been involved in controversies around the United States. Years ago many individuals were concerned that as a result of sex education, students would experiment with sex. Today, in some states, abstinence is widely taught, and this too adds to the debate of sex education.

As Scales (1993) stated, "Regardless of the areas of difference that surface among us, responsible adults on all sides know that sexuality education is neither panacea nor poison, but that it is aprt of an effective response to the challenge of promoting the healthy growth and development of young people" (p. 121). It is important to emphasize that individuals must focus on the unifying forces in our commuknities and not dwell always on the differences (Scales, 1993).

Sex education is becoming more important everyday. In practically every daily newspaper or on television news, information is presented dealing with AIDS, students who keep scorecards about sexual conquests, the number of teenage pregnancies, philosophical battles over abortions, sexual abuse, etc. These are social problems and Krueger, (1993) has stated that schools are expected to address these issues that were once reserved for institutions such as the family and church, and social agencies.

Sex education curricula throughout the United States has experienced controversy. In such locations as South Carolina, Washington, Florida, Claifornia, New York, and even in serveral states in the mid-west, controversies over sex education content and teaching methods have arisen. Because of controversy, health teachers, curriculum coordinators, professors, administrators, and other interested individuals met in Reston, VA in August, 1993 to discuss strategies for managing community conflicts over sex education.

Currently there are 34 states requiring sex education to be part of the K-12 curriculum with additional states studying the possibility of

curriculum enclosure. Because sex education and selected health issues have received wide press coverage lately, the investigators decuded to survey principals of elementary schools in a rural tate to determine their opinions toward sex education.

RESEARCH PROCEDURES

A postcard questionnaire consisting of six questions was constructed by the investigators in order to ascertain the opinions of elementary school principals toward sex education.

The sample for this study was the total number of elementary school principals in South Dakota public school districts. Three-hundred fifteen elementary school principals were identified to receive the questionnaire.

During October, 1993 the elementary school principals were mailed the questionnaire. Fifty-seven percent, or 179 questionnaires, were returned for analysis.

After the information was received, percentages were calcualated for five of the questions. Information on the sixth question did not lend itself for statistical analysis so a narrative description was written.

FINDINGS

The first survey question asked if sex education should be taught in the elementary schools. Eighty-five percent of the principals thought sex education should be taught in the elementary schools. Twelve percent did not believe sex education should be taught. Three percent made no response to this question.

The second qeustion asked when sex education should first be taught in the schools. Thirty-three percent thought sex education should be first introduced in kindergarten. Twenty percent of principals thought grade five was the grade for the first introduction of sex education. Grade 4 followed with 17 percent. The totla of these three grades accounted for 70 percent of the survey responses. The other grades received responses of 6 percent or less. Nine percent of the principals did not respond to

question number two.

Does the local community support the concept of teahcing sex education was the third question asked of the elementary principals. Seventy-four percent of the respondents indicated community support for sex education. Twenty-two percent felt the community would not support such a curriculum. Four percent of the principals did not respond to the question.

When asked if there are objections to sex education as part of the school curriculum, 54 percent of the responses said yes. Forty-two percent of the principals did not believe there were any objections. Four percent of the respondents did not answer question four.

When asked which curricular area would be most appropriate for sex education instruction, the most popular subject mentioned was health. Eighty percent of the responses favored health as the appropriate subject areas. Science, with a 3 percent response rate, was the second most frequent mentioned subject area. A variety of other subjects were mentioned, such as social studies, guidance/counseling programs, across the entire curriculum, and human sexuality/AIDS classes. Six percent of the principals did not respond to the question.

A sixth question asked who presently teaches sex education in the elementary schools. A wide variety of responses were made which made it difficult to statistically analyze. The surveys reported the elementary school teacher was the person largely ressponsible for teaching sex eductaion. The school nurse was the second most likely individual who facilitated sex education instruction. Guidance counselors are also involved in instruction.

COMMENTS

Comments accompanying survey results were many and varied. Some had religious and moral overtones; others rejected the notion of burdening the elementary curriculum with more than is absolutely necessary. Typical comments follow.

I have told parents that pupils get more bad sex education from television than any other place.

Abstinence mandate. Home, church--NOT school.

Sex education belongs in the home.
It is important that parents are alert to what is taught. Knowing and being informed increases acceptance and communication between parents and child.

If parents don't teach it, then it should be taught by schools.

In my view, the real concern about AIDS has opened up the doors to sex education.

Sex is such a developmental area. Some 5th graders are ready--others are not. What's appropriate for one may not be for the other.

The school's mission has changed. We now teach people how to drive, to avoid AIDS, to resist drugs/alcohol, etc. It appears that schools are now becoming social welfare agencies.

Sex education needs to be taught at home. Schools are forced to be the moral conscience of the country. When are parents going to accept the responsibility of bringing up their children?

If sex education taught the students about relationships and respect for each other, it would be beneficial--also the responsibilities involved in being sexually active.

The key is to plan your curriculum with community input.

CONCLUSIONS

The results of our survey indicated the majority of elementary school principals surveyed favored teaching sex education in the elementary schools. The elementary principals surveyed also believed that their local communities supported the teaching of sex education in

the schools. However, there were some objections tok the teaching of sex education. It appears that the elementary principals favored starting sex education instruction in kindergarten and continuing throughout the grades. Classroom teachers and school nurses were those responsible for the majority of sex education instruction. Health was reported as the most appropriate curricular area for the teaching of sex education.

Perhaps the greatest contribution this study can make is to promote thinking and discourse by educators regarding sex education. Sex education is still an emotional and somewhat controversial topic for educators.

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Table 1

Should Sex Education Be Taught in Elementary Schools?

Yes	85%
No	12%
No Response	3%

Table 2

Grade Level to First Introduce Sex Education

Kindergarten	33%
Grade 1	1%
Grade 2	1%
Grade 3	6%
Grade 4	17%
Grade 5	20%
Grade 6	6%
Grade 7	5%
Grade 8	0%
Grade 9	2%
Grade 10	0%
Grade 11	0%
Grade 12	0%
No Response	9%

Table 3

Does the Local Community Support the Teaching of Sex Education?

Yes	74%
No	22%
No Response	4%

Table 4

Are There Objections to Sex Education as Part of the Curriculum?

Yes	54%
No	42%
No Response	4%

Table 5

What Curricular Area Would Be Most appropriate for Sex Education Instruction?

Health	80%
Science	3%
Other Areas	11%
No Response	6%

EMERGING GIANT: PACIFIC RIM LITERATURE FOR CHILDREN AND ADOLESCENTS

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The Pacific Rim is made of up of countries and land that share the shoreline of the Pacific Ocean. The countries and land that make-up this area of the world are: Antarctica, Australia, Brunei, Cambodia, Canada, Chile, China, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Hong Kong, Indonesia, Japan, Korea, Laos, Malaysia, Mexico, New Zealand, Nicaragua, Panama, Papua New Guinea, Peru, Philippines, Russia, Singapore, Taiwan, United States, Vietnam, and the Islands in the Pacific.

The Pacific Rim area can boast of some of the world's largest economies, six of the seven powerful armies, and over half of the world's population. Some of the world's highest population densities are found in Hong Kong, South Korea, Japan, Taiwan, Macao and Singapore as well as some of the least dense population areas of the world being in Canada, Australia, and Antarctica. This region has contrasting climates, from the rainforests of the tropical regions to the ice and snow covered Antarctica. The Pacific Ocean covers one-third of the earth's surface and is 8,000 miles at the widest point. It has received the nickname "Ring of Fire" as ninety-one percent of the world's active volcanoes are located in this area (Phillips and Levi, 1988).

Since this emerging giant is bordering on the western shore of our country, it would seem that the study of the Pacific Rim should be part of the curriculum in elementary and secondary schools with the major emphasis on preparing students for the twenty-first century in an interdependent global society. It is important that students understand the culture of the Pacific Rim countries.

As a unit of study begins it is important that the teacher and students understand and use appropriate terminology and definitions. According to Hernandez (1989), the definition of *culture* is a system of beliefs, standards, and values which is instrumental in guiding a particular group of people's behavior, feelings, and thoughts. A culture is a dynamic process which helps a person make sense of his or her life and understand the behavior of others (Spindler and Spindler, 1990).

The Pacific Rim is rich in cultural diversity. Literature written for children and adolescents is an ideal way to help students gain an understanding of the area and its people. Bishop (1987) states students

can learn through literature that all people are alike with the same emotions, needs, and desires, but at the same time can understand the differences among cultural groups. Students should also be able to understand the effects of social issues and forces that shape the lives of these people and comprehend the values that are transmitted in a culture.

This comprehension and compassion can be developed through the use of multicultural literature. *Multicultural literature* is literary works that focus on people of color, religious and regional minorities, the disabled, and the aged (Harris, 1992). To further help a student's understanding of differences, a teacher should include *multiethnic literature* , which deals with people of diverse backgrounds within the United States, including African Americans, Native Americans, Hispanic Americans, and Asian Americans (Harris, 1992).

Teachers should use *culturally conscious* literature that accurately reflects a group's culture, language, history, values, and does not present the group as stereotypes but as complex human beings (Sims, 1982). Another consideration for teachers is to use *social conscious literature* written about minorities to help both majority and minority readers understand the conditions of fellow humans (Lynch-Brown and Tomlinson, 1993).

To select appropriate literature a teacher should consider the following: (1) the general accuracy of the story line, (2) lack of stereotypes, (3) use of appropriate language rather than derogatory slang, (4) accurate perspective of the author and, (5) story line and illustrations need to be current in fact and interpretation in children's and adolescent literature (Ramirez and Ramirez, 1994).

Basic guidelines on what multiethnic books should portray have been developed by Ramirez and Ramirez (1994). These guidelines include the following points: (1) the literary work should reflect the authentic way of life for a group of people, (2) provide accurate information about the people in the story and attempt to correct any historical errors or omissions, (3) the characters should be true to life by providing a positive image rather than prejudiced description or stereotypical view, (4) the illustrations should be a true reflection of the group, and (5) the

language should provide insight into the group.

Of course, integrating literature featuring diversity of any kind from the traditional canon of writing by white European males takes time and effort on behalf of the teacher. Creating a classroom curriculum featuring literature diversity cannot be done at once; instead it should be seen as a process taking at least a year's worth of time and effort. Whaley and Dodge (1993) describe the stages of transformation an educator goes through in the creation of a diverse reading curriculum. These stages include: 1)womanless and all-white history, 2)exceptional women and persons of color in history, 3)women and people of color as problems, anomalies, absences, or victims in history, 4) women's lives and the lives of people of color as history, and 5) history redefined and reconstructed to include us all. Pacific Rim literature, then, is seen as a step toward the final goal of global education.

The children's literature bibliography has two perspectives; a compilation of authors from the Pacific Rim countries and authors from the Pacific Rim and other countries who have written books about the region. Pacific Rim countries represented in children's literature written in English or translated into a complete bibliography are Antarctica, Australia, Cambodia, Canada, Colombia, Costa Rica, El Salvador, Guatemala, Hong Kong, Indonesia, Japan, Korea, Laos, Malaysia, Mexico, New Zealand, Nicaragua, Panama, Peru, Philippines, Russia, Singapore, United States, Vietnam, and Islands of the Pacific (Spiegel and Richardson, 1994). Also included are books presenting a global perspective. The following are examples of books from the bibliography that represent literature from and about the Pacific Rim: Antarctica (Antarctica), Koala Lou and One Wooly Wombat (Australia), Cambodian Folk Stories From Gatiloke (Cambodia), The Incredible Journey and From Anna (Canada), Turtle Watch (Chile), Ming Lo Moves the Mountain and Yeh-Shen: A Cinderella Story From China (China), Colombia: The Drug War (Colombia), And Sunday Makes Seven (Costa Rica), Magic Dogs of the Volcanoes/Los Perros Magicos de los Volcanoes (El Salvador), Magic Maize (Guatemala), Our Home is the Sea (Hong Kong), Indonesia: A Nation of Islands (Indonesia), The Tale of the Mandarin Ducks and Faithful Elephants: A True Story of Animals, People, and War (Japan), Mr. Moon and Miss Sun (Korea), Nine-in-one Grr! Grr! A Folktale From the Hmong People of Laos (Laos), The

Crab (Malaysia), The Flame of Peace: A Tale of the Aztecs and Pancho's Pinata (Mexico), Alex in Winter (New Zealand), Uncle Nacho's Hat: A Folk Tale from Nicaragua (Nicaragua), Take a Trip to Panama (Panama), Moon Rope (Peru), Rockaby Crocodile (Philippines), The Mitten and Babushka and the Three Kings (Russia), Singapore (Singapore), Julie of the Wolves and Tar Beach (United States), The Moon Bamboo (Vietnam), and South Pacific Islanders (Islands in the Pacific). All in a Day and People are two picture books that present people from the entire world (global).

The adolescent literature bibliography presents books with themes or characters from the Pacific Rim area. Countries and novels represented in the complete bibliography include Escape by Deluge (Australia), Children of the River (Cambodia), Sweetgrass (Canada), The Honorable Prison (Costa Rica), Journey of the Sparrows (El Salvador), Several Kinds of Silence (Japan), Year of Impossible Goodbyes (Korea), Vatsana's Lucky New Year (Laos), Class President (Mexico), The Fire-Raiser (New Zealand), Molly by any Other Name (China), Scarecrow (Russia), New Kids on the Block: Oral Histories of Immigrant Teens (United States), and Song of the Buffalo Boy (Vietnam). (Spiegel and Richardson, 1994).

In both bibliographies, those countries not represented indicates that either books representing this area were not found to be suitable (outdated, stereotyped, etc.) or a book representing this area was not found at all. While some Pacific Rim countries feature a dearth of literature, many others do not. It would seem appropriate and timely for educators to discover the native literature of all the Pacific Rim countries, especially those not widely represented by children's and adolescent books.

There is a wealth of information to be found in books representing the Pacific Rim, and their classroom use promotes knowledge, tolerance, and diversity among students, teachers, and parents. Because Pacific Rim literature may not be widely used in the classroom and knowledge about these countries may be scant, its emphasis is especially beneficial. However, aside from promoting diversity and tolerance in the classroom, Pacific Rim literature also provides another wonderful service: good literature for students of all ages.

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FACULTY COLLABORATION IN DEVELOPING COMPETENCY IN PRESERVICE TRAINING THROUGH PORTFOLIO ASSESSMENT

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While traditional measures such as standardized tests and criterion-referenced classroom exams are an efficient way to sample what students have learned (or have not learned), many view the information gained as incomplete. Teachers have typically used informal assessments to supplement these more formal test scores. Because this information is often viewed as subjective, there is a tendency to interpret it as reflecting less rigorous standards of achievement. Alternative assessment, however, has gained attention in recent years as a means by which to collect information about students' acquisition and application of knowledge in a systematic way, using the components of reflection, self-direction, and personal engagement in meaningful tasks as part of the evaluation of students' educational progress.

The portfolio is one vehicle for implementing alternative assessment. It allows the teacher and student to share control over what learning is to be evaluated and how it will be documented thus the student assumes responsibility as evaluator, documenter, and planner of his or her learning (Berry, Kisch, Ryan, and Uphoff, 1991). The portfolio method focuses on production and demonstration of competency rather than on mere recall of isolated facts, facilitates projects that allow for depth and breadth rather than superficial coverage of content, provides a means of offering informed judgment of growth rather than mechanical scoring (Calfee, 1992), and represents different stages of growth in which a range of experiences and achievements can be documented to provide a cumulative record of performances (Paulson, Paulson, and Meyer, 1991; Ohlhausen, M. and Ford, M., 1990; Ohlhausen, 1990).

During the 1993 Spring , Summer, and Fall sessions at the University of South Dakota the portfolio process was implemented in several Early Childhood Special Education (ECSE) graduate classes. The purpose of the USD Early Childhood Special Education (ECSE) project was to incorporate the portfolio process into ECSE classes in order to provide students a foundation for working with young children with special needs and with their families. Because many states are in the process of developing certification standards for professionals who will be working in the field of early childhood special education, it is important that the preparatory programs provide procedures that will assist students in meeting the certification requirements. The portfolio is an ideal vehicle

for planning, acquiring, and demonstrating the acquisition of requisite competencies. In addition, portfolios offer a model for collaboration with peers and faculty which can foster long-term professional behavior in using multiple resources to pose and solve problems related to serving this special population. What follows is a summary of the implementation process, analysis of feedback data, and initial outcomes of the project from the perspective of faculty involvement.

The first phase of faculty involvement focused on awareness of and orientation to the portfolio process. In order to provide information to potential faculty participants, all School of Education faculty received a letter inviting them to take part in the project. Informal meetings were held with seven interested faculty members to explain the use of student committees to guide the planning and carrying out of individual projects. The primary role of faculty, who were asked to serve on one or more portfolio committees, was to read and respond to the student's proposal. In addition, it was requested that faculty be available to the student on an informal basis should he or she request on-going collaboration.

During the second phase of involvement, faculty interacted on committees comprised of the professor of the course, two outside faculty members, and the student. The interdisciplinary committees offered a range of resources, provided input for continuation of the projects, and determined that all of the competencies were adequately addressed in the various tasks outlined in the proposals. The committees also assisted students in determining how they might weight the individual components of the portfolio for final assessment (course grade), basing their suggestions on the students' personal interests and expertise, and on the direction of the projects. At the mid-point of the semester, faculty were also invited to attend class presentations about portfolios in-progress.

The final phase of faculty involvement occurred from mid-semester to the end of the course. Some committees reconvened to make evaluative comments about the tasks that had been completed as well as those that were still in the planning stage and being readied for implementation at a later date. Committee members and other interested faculty were invited to attend a poster session in which students informally presented their portfolio projects.

Following their involvement in the portfolio process, faculty were asked to provide feedback by responding to an open-ended questionnaire. We asked faculty to respond to the following questions:

- What are your feelings now about the portfolio process?
- What do you see as the strengths of the process?
- At this time, what would you change?
- Do you see this process facilitating students' learning in ways not possible without its implementation? (Could this learning occur through another method?)
- In what ways do you anticipate this process enhancing students' personal growth? their professional growth?
- In what ways do you anticipate this process enhancing your own personal growth? your own professional growth?

Several patterns emerged in their responses. Among the perceived strengths were the opportunity for students to shape their own learning in authentic ways through the pursuit of their own interests and needs, the focus on collaboration among peers and faculty; and the opportunity for self-reflection and self-evaluation in both short and long-term projects. Too, faculty applauded the scope of the proposals and the caliber of the completed projects. The consensus of the group was that while other approaches incorporated some of the strengths, no other method addressed all of them.

Faculty feedback also provided insight into some problems, often noting concerns that we shared. For example, some faculty were unclear about the nature of their role in the process or felt they had been under-utilized, particularly after the initial proposal meeting. One participant wrote:

> *I was not closely involved with the process; it seems that much of the essential work went on without my input....I need to have the opportunity to see (if not comment on) drafts of products.*

Issues pertaining to the scheduling of multiple conferences, to facilitating on-going discussion, and to providing sufficient background about the process without overtaxing our faculty were concerns we had struggled to address prior to the pilot project. This participant's comment, however,

indicates that perhaps we need to be less protective of faculty time and to encourage committee members to shape their involvement.

Another issue mentioned by several faculty related to the competencies on which the portfolio projects were based. Some faculty members expressed reservations about whether all of the competencies could be met in a semester course. Part of this concern focused on the quantity of competencies to be met, and it was allayed by the reassurance that projects were likely to meet multiple competencies and that during the proposal meeting, the committee could suggest ways to extend a project to incorporate competencies that the student had not seen as related to the project.

The more difficult aspect of tying the projects to the competencies was the issue of quality of learning. Ultimately, this becomes an evaluation concern. How can we ensure that the content of the course is learned to the desired level of expertise? Will evidence of having addressed each competency in the portfolio projects suffice as demonstrated acquisition of the skill or knowledge it represents? In revising the evaluation instrument, we are exploring how to develop rubrics to indicate the level of expertise acquired through the projects. This should also help us to advise students in their planning as well as to assess their learning. In addition, we are exploring increased committee involvement in the evaluation phase.

In response to our questions about their own growth, faculty identified several factors. In terms of personal growth, they indicated the benefit of working with a wider cross-section of graduate students as a positive result of the portfolio process. Similarly, they appreciated the opportunity to get to know students on a more personal level and to exchange ideas about common interests. With regard to their professional growth, the faculty noted that their participation provided an opportunity to examine an alternative approach to assessment, gave them an opportunity to collaborate on interests they shared with others as well as to explore a different professional arena, and initiated recognition that students need to be more actively involved in their own learning.

Although we are still refining the use of portfolios in the ECSE

program, it seems clear that faculty collaboration in the process is a primary strength. The seven faculty members who participated in the pilot project indicated that they valued dialogue and expertise across department, division, community, and student/faculty boundaries.

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TEACHER BELIEFS AND CONTENT KNOWLEDGE: INFLUENCES ON LESSON CRAFTING OF PRESERVICE TEACHERS DURING GEOMETRY LESSONS

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INTRODUCTION

The present high school geometry course is not effective for most students. Many students fail high school geometry because of the lack of entry-level knowledge (Senk, 1989; Usiskin, 1982). The current pattern of geometry instruction tends to discourage students from continuing to take courses in mathematics. Thus, the high school geometry course becomes the last mathematics course for many students, especially women and minority students (Dossey, Mullis, Lindquist, & Chambers, 1988).

The difficulties that students have with high school geometry appear to begin in earlier grades. Research findings (Burger, 1985; Fuys, Geddes, & Tischler, 1988; Usiskin, 1982) show that geometry is a neglected part of the middle school mathematics experience of many students. These findings indicate that what geometry is taught at the middle school level is often taught by rote or requires minimal student response and teacher feedback. The weaknesses in instruction are likely to be related to the teachers' own experiences with mathematics.

The research (Schoenfeld, 1985; Thompson, 1984) to date has examined teacher beliefs and preferences about mathematics but not the teaching of geometry in grades three, four, and five. Thus, the purpose of this study was to investigate the teaching of the concept of area and the concept of polygon by preservice elementary school teachers and to determine what relationships exist between a teacher's beliefs about geometry, the teacher's geometric content knowledge and the teacher's lesson crafting.

DESCRIPTION OF STUDY

Subjects: Participants in this study were chosen from among those college students who had been accepted into the College of Education at a northwestern university. At the time of this study, each subject had completed at least thirty semester hours of course work at the college level, had spent eight hours or more working with children, had at least a 2.5 GPA and had completed the first course in mathematics for K-8 teachers. Furthermore, each preservice teacher had completed the practicum experience but not student teaching. In addition, each

preservice teacher was regarded by his/her instructors as a capable student and a strong candidate to become a successful teacher.

Research Instruments: Multiple methods were used to assess content knowledge, teacher beliefs, and lesson crafting. To determine the effects of a preservice teacher's geometric content knowledge on lesson crafting, the **van Hiele Geometry Test** was used. A geometric problem set was developed in accordance with the van Hiele model and this data was triangulated with interview data. To classify each preservice teacher's beliefs as those of either a traditionalist or a constructivist, the **Schoenfeld Mathematical Beliefs Questionnaire** and the **Parsons Paradigm Probe** were used. A second interview schedule was developed to substantiate information obtained from the **Schoenfeld Mathematical Beliefs Questionnaire** and the **Parsons Paradigm Probe.** The data on lesson crafting was collected by four methods: audiotaping and videotaping of a subject teaching both the concept of area and the concept of polygon, interviewing and audiotaping of the subject immediately following the teaching of polygon and area, audiotaping of each subject watching herself/himself teaching polygon and area, and analyzing statements made by each subject during the interviews.

Procedure: Subjects were assessed individually on geometric knowledge, beliefs, and lesson crafting. Questionnaires were administered first, followed by the problem set and the interviews over the period of one semester. Assessment of geometric knowledge used the **van Hiele Geometry Test,** the **Problem Set,** and interview data. Beliefs about teaching were assessed using the **Schoenfeld Mathematical Beliefs Questionnaire**, the **Parsons Paradigm Probe**, and the interview data. Lesson crafting was assessed through videotaped teaching sessions in which the subjects were teaching the concept of area and the concept of polygon. Transcription of the subject's teaching was analyzed using techniques illustrated by Davies (1982). The lessons were also analyzed for evidence of routines, lesson segments, and lesson scripts first identified by Leinhardt (1987).

RESULTS:

The purposes of this study were to measure the geometric content

knowledge of preservice elementary teachers and to find the relationship between a teacher's content knowledge and his/her teaching of area and polygon. Further, this research was to examine the beliefs about the teaching and learning of geometry currently held by preservice elementary teachers and to determine what relationship exists between these beliefs and the teaching of specific geometric concepts (area and polygon). Table 1 summarizes these relationships.

The relationship between a preservice teacher's van Hiele Level and the van Hiele Level used during instruction was that a preservice teacher at van Hiele Level n used language and concepts at van Hiele Level n or n-1. Furthermore, if this same teacher was at van Hiele Level n, then she/he chose activities that were at van Hiele Level n or n-1 and implemented these activities at that same level. For example, the basic area lesson of each preservice teacher was "to find the area of a plane figure." However, Mr. Kay used counting as the only way to find area (a Level 0 activity). Mrs. See used a comparison of areas (a Level 1 activity) to focus children's thinking on the concept of area. Mr. Dee derived informally the formula for the area of a triangle (a Level 2 activity). Thus, each preservice teacher was using activities at his/her tested van Hiele Level.

The relationship between a preservice teacher's current philosophy about the teaching and learning of geometry and the manner in which the teacher taught area and polygon was that each subject in this study professed to be a Constructivist in her/his current teaching paradigm but exhibited a more Traditional model of teaching during instruction. That is, each preservice teacher during instruction acted as if "mathematics is a fixed body of knowledge that is best learned by memorizing facts and rules."

In summary, although these inexperienced teachers professed Constructivist beliefs, their lesson crafting was influenced by other more powerful forces. These forces included their Traditional beliefs about presentation of lessons, based on a significant teacher they had known; their beliefs about the depth of understanding that teachers need; and their beliefs about textbooks as the major source of content knowledge and pedagogical content knowledge.

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Table 1

Summary of Research Findings

	Mr. Kay	Mrs. See	Mr. Dee
van Hiele Level of each preservice teacher	Level 0 Recognition	Level 1 Analysis	Level 2 Informal Deduction
van Hiele Level of teacher's instruction	Level 0 Recognition	Level 1 Analysis	Level 2 Informal Deduction
Presently-held view of each preservice teacher	Constructivist View	Constructivist View	Constructivist View
Teaching model used during instruction	Traditionalist View	Traditionalist View	Traditionalist View

INVOLVING FATHERS OF CHILDREN WITH DISABILITIES: BARRIERS AND FACILITATORS

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For at least the past 10-15 years, interest in the role of the father and in being a father has been increasing (Parke, 1981; Chiland, 1982; Lamb,1987; Russell, 1983). In general, much of this literature has portrayed the father positively. It has also focused on ways in which the "father role" has expanded recently, typically in terms of fathers involvement in what had been considered solely mother's work, such as child care and housework. Virtually all of this literature addresses the father's role from a general viewpoint; there is relatively little literature about fathers of children with disabilities (however, see May, 1991 and Lillie, 1993).

What literature does exist suggests that a substantial portion of men who are fathers want to be more involved with their children's lives than they currently are (Lamb, 1987). While the types of increased involvement fathers want is still not clear (they may not know themselves), it does appear that an increase in father's time with his children means a decrease in mother's time. At the very least, according to some, father involvement threatens the importance of the mother's traditional gatekeeping role, in which she either decides or has a substantial influence on, how much child care involvement fathers have (Baruch & Barnett, 1986; Crouter, Perry-Jenkins, Huston, & McHale, 1987; Weinraub, 1978). It is on this point: that is, whether mothers should retain exclusive control over this crucial area of a child's life, which seems to lie at the core of the barriers to father involvement with their children. Incidentally, it is important in this context to note that (in special education and related disability areas), we are often being pulled along by social trends instead of leading in them (Gallagher, 1994). Thus, some barriers or facilitators noted here may not be readily apparent in the special education/disability studies area as yet. It should also be clearly stated that the research noted does not apply to individuals, who vary substantially in their interactions, nor does it purport to address <u>every</u> issue regarding barriers or facilitators to father involvement with their children with disabilities.

BASIC BARRIERS

One important barrier to increased father involvement is raised by a phenomenon know as "mother-blaming" which is held to account for why

fathers are purportedly not seen as responsible for child and adolescent psychopathology to the extent that mothers are seen as responsible (Phares, 1992). However, at least one empirical study of the issue in the family therapy field found nothing to support the notion that "mother-blaming" affects current therapeutic interventions (McCollum & Russell, 1992). In an examination of articles with "father-daughter" and "mother-son" in the descriptor, a search of the PsychLit data base resulted in the finding that when father-daughter issues are studied, those issues are much more likely to be deviant father-daughter issues than when mother-son issues are studied (70% of articles vs. 20% on issues combining the descriptors noted with "child abuse" and/or "incest" (Lillie, 1993). While it is certainly extremely important to study fathers, even if some of those studies present negative views of fathers and fathering, it is the persistently negative view of fathers, such as is represented in the PsychLit data, which may have the effect of establishing a presumption of incompetence or even harmfulness, where fathers are concerned.

In the field of special education, long considered to be female-dominated and mother-oriented (Gallagher, Beckman, & Cross, 1983), this attitude, combined with others of similar provenance, may result in the exclusion of the father (or male) from involvement with his children or, in some cases, from other children (Markowitz, 1984). In some cases, this can result in professionals chiding fathers for lack of involvement (McConachie, 1982)!

A second important barrier is related to the first, but has more to do with feminist analyses of what is studied, rather than mother-blaming. In these cases, fathers and father's roles may be confounded with "patriarchy". Jaclyn Miller (1991), for example, in a feminist analysis of child welfare and the role of women asserts that:

> "the literature on child welfare is replete with references to children and families. The position taken here [by Miller] is that such references are inaccurate and blur the real issues which need attention. The focus should be on women and children.... While the social institution of child welfare may have been founded primarily by men...it is a system of, by, and for women...." (p. 593), and,

"The basic assumption of patriarchy is gender inequality: in the family ethic the role of a woman is to be economically dependent on a man, have children, provide unpaid care in the home, and provide low-paid labor in the marketplace." (p. 594).

Pollock & Sutton (1985) take this type of analysis even further. In a discussion of recent moves to mandate father involvement with their children by means of law and public policy changes, these authors indicate that laws or policies which encourage the presence of men in families are prima facie evidence of discrimination against women because "Fatherhood is the ideology and practice of the dominance of the senior male" (p. 595) and is, in fact, the way girls are taught submissiveness and "a thorough disrespect for women" (p. 595).

Kraemer (1991) calls fatherhood itself nothing more than a "protection racket" (p. 377), while Furstenberg and Harris (1990) have argued that biological fatherhood is becoming irrelevant.

These analyses appear to place fathers in impossible situations: if they actively seek involvement with their children's lives, they may be considered misogynist by some; if they do not try to be involved with their children they run the risk of being considered to be uninvolved. Further, attitudes such as the ones presented may be extremely intimidating to fathers who are trying to find ways to be involved with their child with a disability (Gallagher, et al., 1983).

A third barrier is the notion that mothers must act as gatekeepers for the father. That is, mothers are seen as validators of father involvement only by giving their permission for it. There is some evidence (Baruch & Barnett, 1986) that mothers whose gatekeeping functions are respected are less subject to stress and lowered self-esteem than are those who receive more, but uninvited, family/household help from fathers. Fathers who are unable to make contributions to parenting without permission from mothers will not be able to make unique contributions to child development. Further, encouragement of this attitude could return us to the concept that mothers are responsible for the psychological outcomes of their children (because they are the responsible party as gatekeeper).

A fourth barrier is the attitude of employers, who have been found to subtly (or not-so-subtly) block paternal leave, as compared to maternal leave (Catalyst, 1986; Wood, 1994). That is, major firms offer "parental" leave, but make it clear that fathers who elect to take leave do so at the risk of their careers. Wood (1994) asserts that this problem is occurring when women take advantage of this fringe benefit, as well. Fathers who take time off for their young children are still rare, as a result. It appears that this barrier to child care involvement may have an important impact on the care of children with and without disabilities.

Fathers of children with disabilities, like fathers of children without disabilities, will be deterred from taking a role in the care and upbringing of their children by these social barriers. In addition, feelings of anger, frustration, isolation, and men's feelings that they must be strong at all costs frequently act as self-made barriers to the involvement of fathers with their child with special needs (see May, 1991, for a review of some of these issues).

FACILITATORS

On the other hand, there are some very bright spots which should be encouraging to those men interested in finding ways to become more involved with their children (with or without disabling conditions).

First, there is a growing (though still small and tentative) body of scholarly literature which focuses on fathers who are, themselves, involved in non-traditional roles and lifestyles. For example, Meyer & Gorasky (1993) have reported that father-only families have had the fastest growth rate in the past 30 years of all types of families and now constitute "more than 15% of all single-parent families" (p. 78). They also discuss and refute several myths about single fathers. May and Strikwerda (1991) and Schmitt (1993) have discussed fathers as nurturers and the difficulty men will have in their new roles as "carers". All this is either data-based or reflects the idea that men's roles may validly include child care and/or "caring," at least for their own children. May and Strikwerda (1991) argue that men-as-nurturers should be involved in roles such as day-care teachers, traditionally held almost exclusively by women. However, their argument supports the idea that fathers should not try to

be substitute mothers but should provide nurturance in ways which are unique to them. Further, they note that fathers need to take part in the care of their very young children and actively resist the notion that fatherhood and child care are or ought to be in separate spheres. Hum (1990) has opened up the topic of the special needs of rural single parent fathers. Single fathers of children with disabilities also exist in South Dakota, and are actively involved with the care of their children (V. Therkildsen, personal communication, April 15, 1994).

Thus, a major facilitator to fathers becoming involved with the care of their children is that they are being taken seriously, as fathers, sometimes for the first time. This has also begun to occur with more frequency in the special education and disability literature (Lillie, 1993; May, 1991), which is encouraging.

A second facilitator of fathers involvement is the popular press and television. Fathers have been presented in a number of television shows and newspaper articles recently as being involved with their children and (in some cases) in nurturing roles. "Life Goes On" is particularly important in this context because it included a portrayal of an involved father who had both a child with and children without disabling conditions.

FUTURE STUDY

Future directions for study in this area include the need for further work on characteristics of single fathers and characteristics of single fathers of children with disabilities to determine similarities and differences between these two groups of men.

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MEASURING THE CONFIDENCE AND RELIABILITY OF THE CONCEPTUAL SCIENCE KNOWLEDGE BASE OF RURAL IDAHO ELEMENTARY TEACHERS

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There have been numerous calls to improve the quality of science education taught in the schools at all levels (AAAS, 1985, 1986, 1989; BSCS, 1990; Carnegie Council, 1989; NAEP, 1985; National Governors Association Report, 1990; National Science Board, 1987; NSTA, 1990). Most recently the focus has been at the elementary level (Barrow, 1987, 1991; Loucks-Horsley, Carlson, Brink, Horwitz, Marsh, Pratt, Roy & Worth, 1989; Penick, 1987). Elementary teachers have been identified as having poor attitudes toward science, which they pass on to their students (Ball, 1991; Clark & Yinger, 1987; McDiarmid, Ball & Anderson, 1989). Additionally, when teacher preparation standards were reviewed, it was found that the preparation programs for elementary teachers in science were inadequate (Barrow 1987, 1991; Melchert, 1991; NSTA, 1983). Despite reports identifying the inadequacies of teacher preparation programs and calls for increasing certification legitimacy, teacher preparation programs have still been the most poorly funded of all university programs (Bracey, 1991; Darling-Hammond, 1993; Ebmeier, Twombly & Teeter, 1990; Kennedy, 1989, 1990, 1991). As school districts embraced new learning theories, particularly the constructivist theory, the teacher's role changed to that of a facilitator rather than a disseminator of knowledge (Bracey, 1991; Grossman, Wilson & Shulman, 1989; Kennedy, 1990, 1991; Raizen, Baron, Champagne, Haertel, Mullis & Oakes, 1989).

As school districts moved away from purchased text series, and adopted hands-on science programs, the teacher's conceptual knowledge became even more important in the classroom (Brewer & Chinn, 1991; Englemann, 1991; Floden, 1991; Hein, 1990). Current assessments were one-dimensional in nature. These assessments did not meet the needs of the classroom teacher (Bruno, 1988; Hein, 1990; Raizen et al., 1989). There was a need for an assessment that could be used as a diagnostic tool to promote conceptual development in each individual student (Berger, 1991; Carroll & Carini, 1991; Loucks-Horsley et al., 1989; Neil & Medina, 1989; Raizen et al., 1989). As accountability for students' learnings becomes more focused, it is imperative that teachers are provided a way to assess their own content knowledge, thus preventing their transmission of inaccurate knowledge to their students (Albedi & Bruno, 1989; Bruno, 1990/91, 1988; Kennedy, 1990).

PURPOSE

The study identified the concerns of researchers in the area of teacher content knowledge by: a) focusing on the confidence of teachers in their content knowledge, b) focusing on one subject area (science), c) focusing on content knowledge of teachers during various stages of their professional careers, and d) exploring the knowledge of teachers from different grade levels. The purpose of the study was to design, develop, and administer an information referenced assessment instrument that could be used as a diagnostic tool to promote conceptual development of elementary teachers' knowledge of science and to identify the confidence and reliability of their knowledge bases. The standards of knowledge and performance at each grade level were based on the core science curriculum common to most elementary teachers.

HYPOTHESES

Four questions were asked in this study: 1) will significant reliable and confident information vary according to the Biological, Physical and Earth Science assessments; 2) will significant reliable and confident information correspond to the grade level of the teacher; 3) will confidence in reliable information vary significantly according to the number of years of teaching experience; and 4) do other demographic variables (population size of the district, state of initial certification) significantly impact confident and reliable information of elementary teachers? Reliable and confident information is defined as having certainty that the information is valid. The two hypotheses for this study were: Hypothesis 1: There is no significant relationship between science content and teacher confidence in valid knowledge at the $p<.01$ level, and Hypothesis 2: There is no significant relationship between the knowledge level and demographic variables at the $p<.01$ level.

Operational definitions utilized in this study included: *misinformation*, the respondents indicated they were confident in inaccurate information; *uninformed*, the respondents identified they had no knowledge of the concept; *partially informed*, the responde. s indicated they had some knowledge of the correct response and had eliminated one inaccurate response; and *informed*, the respondents were confident in

accurate information.

DESIGN AND PROCEDURES

To test the hypotheses and answer the questions, three assessment instruments based on over twenty years of research by Bruno in confidence weight probability measures were designed, developed, and administered. Each instrument was designed based on the information referenced protocol and used an information referenced standard (misinformed, uninformed, partially informed, or informed) instead of the traditional right/wrong scoring procedure. Each assessment was based on a modified confidence weighted-admissible probability measurement (MCW-APM) and identified incomplete or nonexistent information in the teachers content knowledge (Bruno 1986, 1988, 1989, 1992). Format design was modeled after language and mathematics information referenced assessment provided by Dr. Bruno and instrument design procedures (Gay, 1987; Schaeffer, Mendenhall, & Ott, 1990). Numerous studies, as reported by Bruno (1993), identify that three-choice exams have no loss in reliability or test validity compared to four-choice exams, and some studies have concluded that three-choices are optimal when fixed total time is considered.

Each assessment contained 50 items with three response options. Responses were recorded on scantron forms designed specifically for use with the information referenced assessments. Response options were determined from K-6 student responses (n=211) to open ended questions. All test questions were cross-referenced to Idaho curriculum objectives. Each information referenced assessment identified teacher confidence and reliability in his/her science knowledge level. Teacher knowledge levels were identified as informed, partially informed, misinformed, and uninformed. Contrary to traditional scantrons which were scored only right or wrong, the information referenced assessments allowed respondents to identify their confidence level in their response. The response scale included seven possible selections: "I am sure" with a response option of A (coded A), B (coded B), or C (coded C); "I'm not sure" with a response option of A/B (coded H), B/C (coded K), or A/C (coded E); or a response option of "I don't know" (coded M). Based on several years of validated studies, Bruno (1993) comments that scoring of this type of

assessment places strong incentives on the respondents to admit an honest display of their information because of the less restrictive answering environment. Points were deducted only for confidence in incorrect information. No points were awarded or deducted for lack of information. Points were awarded for recognition of the correct response option and confidence in that recognition.

POPULATION

Eight rural Idaho school districts with student populations of fewer than 5000 students were involved in this study. Districts were representative of the geographic regions of Idaho. Elementary teachers in the selected districts were invited to participate. Subjects were classroom teachers. Although the sample was limited, the demographics compared favorably with the 1992-93 academic year demographics of Idaho elementary teachers. The eighty-four subjects assessed do not meet the minimum suggested sample size guidelines. This was identified as a limitation of the study. Elementary teachers in the selected districts were invited to participate in the assessment, thus they were volunteers. It is recognized that a larger sample size would be preferable; however, the demographics of the sample size do correspond very well to the state. An assumption of the study was that since the demographics reflected the state population, these data were worthy of consideration. Overall, there were 102 possible subjects; 84 of whom volunteered to take the assessments.

SUMMARY OF FINDINGS

Significance was set at alpha <.01. A Chi-square contingency tables were used to compare teacher knowledge level by grade level, years of teaching experience, state in which initial certification was received, and school district student population. Each information referenced assessment was also compared to teacher confidence and reliability in their knowledge level. Teacher knowledge levels were identified as informed, partially informed, misinformed, and uninformed.

Hypothesis 1: There is no significant relationship between science content and teacher confidence in valid knowledge. The

results indicated there were no significant difference between content areas ($p<.001$).

The first research question was: will significant reliable and confident information vary according to the Biological, Earth and Physical Science assessments? In the Biological Sciences, 34% of the teacher's content knowledge was identified as misinformed or uninformed. In the Earth Sciences, 41% of the teacher's content knowledge was identified as misinformed or uninformed. In the Physical Sciences, 44% of the teacher's content knowledge was identified as misinformed or uninformed.

Regardless of the demographic variable investigated, two observable trends were noted: 1) the greatest percentage of informed responses were identified in the Biological Sciences and the least percentage was in the Physical Sciences; 2) the greatest percentage of uninformed responses were identified in the Physical Sciences and the least percentage was in the Biological Sciences. The results of this first analysis tend to support the conclusion that teachers are better prepared to teach biological sciences than to teach earth and physical sciences.

A second research question was: will significant reliable and confident information vary according to the grade level of the teacher? The results indicated there were significant differences by grade level for the Earth Science ($p<.001$) and Physical Science ($p<.001$) assessment. The results supported the hypothesis that there is no significant difference for the Biological Science assessment ($p<.085$). The results of the Earth and Physical Science assessments did reject the hypothesis, thus confirming that teachers did not have confident and reliable information in the Physical Sciences and Earth Sciences. It should be noted, when contrasting all three assessments, that teachers held the most confident information in Biological Sciences and they had the least number of uninformed responses in the Biological Sciences.

Hypothesis 2: There is no significant relationship between knowledge level and demographic variables at the $p<.01$ level.

The third research question was: will confidence in

knowledge level vary according to number of years of teaching experience? The results indicated there were significant differences according to number of years teaching experience ($p<.001$) for each assessment.

The general trend was that informed responses increased with years' experience, significantly so after the first five years. Teachers with less than five years' experience increased their information base dramatically when compared to their colleagues. The greatest number of informed percentages were observed in the Biological Sciences, with the Earth Sciences second, and the least percentage of informed responses occurring in the Physical Sciences. Informed responses increased ten percentage points for each assessment after five years teaching experience. After five years, the informed percentages remained fairly stable, with a slight decrease in confident, reliable information (one percent on each assessment).

In the Physical Sciences, misinformation decreased after five years' experience and then rose to nearly the same level for teachers with more than fifteen years' experience. As years of experience increased, the percentage of misinformation increased in the Biological Science and Earth Science assessments. The greatest percentage of partially informed responses occurred with teachers having less than five years' teaching experience. After five years' experience, partial information was nearly halved, and remained stable, with a slight decrease after sixteen years experience (less than one percent). The same pattern was discerned when comparing Biological Sciences, Earth Sciences and Physical Sciences.

Independent of number of years' teaching experience, there was a trend for the lowest percentage of uninformed responses in Biological Science, with the percent increasing in Earth Science and the greatest percentage corresponding to the Physical Sciences. The percent of uninformed responses decreased slightly as years of experience increased. However, the percent of uninformed responses was still nearly thirty percent.

The fourth research question was: are other demographic variables related to knowledge level of elementary teachers?

Two variables were analyzed: a) population size of the district and b) the state in which initial certification occurred. Gender was also considered; however there were too few males to have an adequate cells count, so this analysis was not possible.

Is size of the district related to the knowledge level of elementary teachers? The results indicated there was a significant relationship based on population size for the Biological ($p<.001$) and Physical Sciences ($p<.001$). The null hypothesis could not be rejected for the Earth Sciences ($p<.057$).

Finding no difference in the Earth Science assessment may partly be due to the fact that Idaho is a state noted for its mining industry, and most mining operations are not located in towns with a large population base. Additionally, there have been volcanic eruptions and major earthquakes within the region, providing teachers with the opportunity to use resources and current events in the classroom that may not have been used otherwise. Hence, one could provide a rationale why the hypothesis would not be rejected. This was of particular interest since "earth science is a frequently overlooked science content area" (Barrow, 1991, p. 23).

When comparing district size, there was little difference in the partially informed and informed percentages; however, more misinformation was identified in larger districts and more uninformed responses were recorded in smaller districts. Trends noted included an increase in uninformed responses (Biological Sciences were less than Earth Sciences, which were less than the Physical Sciences) independent of size of the district. There was approximately a thirty percent increase in misinformation in larger districts than in smaller districts, with the exception of Earth Sciences, which was very similar independent of size at 15.88 and 16.59, respectively. Partial information was fairly uniform in all three assessments regardless of district size. The percentage of informed responses dropped with each assessment, with Biological Sciences having the highest percentage of informed responses, Earth Sciences second and Physical Sciences having the lowest percentage of informed responses. The percentages when comparing district population size were within two percentage points of each other. The Biological

Sciences pattern was opposite to that of the Earth Sciences and Physical Sciences assessments when comparing district size.

Does the state of initial certification impact confident and reliable information of elementary teachers? The results indicated there were no significant difference according to the state in which initial certification was granted for the Biological Sciences ($p<.293$), Earth Sciences ($p<.249$) and Physical Sciences ($p<.086$).

The state in which initial certification was granted was not significant. Overall, there were insufficient data to support dependence on Idaho initial certification as a measure of adequate content preparation for teaching science at the elementary level. Independent of where certification was initially received, both groups performed equally poorly on the assessments. With forty-three percent of the respondents receiving initial certification from other states, an attempt was made to sort the respondents by their respective states; however, there were too many states represented to have enough from any one state to allow an adequate cells count for a more detailed analysis. The same general trends were present in this analysis, increasing uninformed response percentages, with Biological Science as the least and Physical Science as the greatest. The percentage of informed responses decreased, with Biological Science having the greatest percentage of informed responses and Physical Science the least. Partial information was nearly stable for all three assessments independent of initial certification. Misinformation was fairly uniform for all three assessments, with a range of only three percentage points, independent of assessment or state of initial certification.

RECOMMENDATIONS AND ISSUES RAISED

For science education, these findings have direct implications for preservice and inservice teachers. The information referenced assessment instruments designed for the study identified to what degree teachers held the same misconceptions as their elementary students, and to what degree the teachers believed their knowledge base to be accurate. The author recommends that the cognitive processing of elementary teachers be addressed to challenge their misconceptions. There is a need for feedback

not addressed in current assessment formats in teacher preparation courses at the university level in science. Inservice teacher programs, workshops, and staff development components should address basic science concept misinformation held by teachers.

The results of this study indicated that 44% of the information in an elementary teachers' knowledge base was inaccurate or nonexistent in the Biological Sciences, 51% in the Earth sciences, and 54% in the Physical sciences. Purging misinformation in a teacher's knowledge base may be addressed by providing teachers the opportunity to test their misconceptions and then replace the misconceptions with valid content knowledge.

The author recommends that researchers continue to use data generated by teachers to guide school science change. Teachers with less than five years experience were the least well prepared---what does this say about the preparation of education majors in the sciences? Teachers increased their certainty of misinformation as they increased in years of teaching experience. What science interventions are occurring and are they actually addressing teacher needs? Forty-nine percent of Idaho elementary teachers received initial certification from other states. Idaho teacher education graduates were not better prepared in science than their out-of-state peers. District staff could use the assessment reports: 1) to request inservice programs for teachers and 2) to purchase instructional materials. These reports could also be used for making decisions including : 1) instructional resource allocations, 2) peer resource assignments, 3) teacher aide assignments, 4) volunteer parent assignments, 5) topics for guest presenters to address. Assessments may be shared with other researchers. In summary, the assessments could be used as a means to provide more focused and effective staff development and inservice programs. From the needs identified by inservice teachers, preservice programs could be strengthened.

The author recommends that Idaho's public education system restructure K-6 teacher preparation in science. Rural school districts need to develop assessment policies at the local level that address specific district needs. Inservice and content courses in science need to be designed to address the needs in science. Each district has different

needs/weaknesses in particular content areas which were identified through the cross-referenced assessment items. Specific inservices and courses could occur to support each individual district. The results have tremendous potential for impacting staff development of inservice teachers and in changing the way teachers are prepared in the future. Statewide comparisons of districts should be supplemented with other data that clarify the teacher diversity of science content knowledge needs of teachers that exists in Idaho districts.

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SOUTH DAKOTA LAWYERS' PERCEPTIONS OF LAW-RELATED AND CIVIC EDUCATION

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Law-related education (LRE) is an important part of the social studies curriculum because it helps students in the development of knowledge, skills, and attitudes needed for citizenship (Pereira, 1988). Law-related education explains to students "...how the legal and political systems function and--most of all--how they fit in (American Bar Association, 1983).

There is, however, limited research which reflects the current perceptions and attitudes of participants involved in the law-related and civic education process (Wolff, 1993). Consequently, the South Dakota Center for Law and Civic Education (SDCLCE) conducted a study in May, 1993 which surveyed South Dakota principals to determine their perceptions, attitudes, and knowledge regarding law-related and civic education.

Following the recommendations of Wolff (1993) for assessment of additional populations, in March 1994 the SDCLCE conducted a second study. This study surveyed South Dakota lawyers to determine their perceptions, attitudes, and knowledge regarding law-related and civic education.

RESEARCH PROCEDURES

To determine the perceptions, attitudes, knowledge, and involvement of South Dakota lawyers in LRE, a questionnaire was constructed and mailed to 100 lawyers randomly selected from the 1214 members of the South Dakota Bar Association. Of the 100 surveys mailed out in March 1994, 72 were returned. The number of usable questionnaires included in the data analysis was 68 or 68%. The data analysis is reported in percentages for each of the thirteen questions.

FINDINGS

The first question was to obtain demographic information concerning the number of years respondents have been lawyers. More than one-half of the respondents have been in practice in excess of six years. Responses by specific categories are shown in Table 1.

"How important do you believe law-related and civic education to be?" was the second question. The responses were divided into elementary school, junior high/middle school, and high school levels. These responses were evaluated on a 4-point Likert scale ranging from not important (1) to very important (4). There was consensus among the respondents that law-related and civic education are important. The importance of law-related and civic education escalated from 58% at the elementary school level to 85% at the junior high/middle school level and 95% at the high school level.

The third question asked, "How important do you believe it is that all South Dakota students learn about American Indian Tribal Law?". This question was evaluated on a 4-point Likert scale ranging from not important (1) to very important (4). More than half of the respondents felt that it was not important for South Dakota students to learn about American Indian Tribal Law.

The fourth question queried lawyers regarding the importance of attending a law-related education workshop session as part of their Continuing Legal Education (CLE). On a 4-point Likert scale ranging from not important (1) to very important (4), 9% gave a ranking of 1, 46% gave a ranking of 2, 31% gave a ranking of 3 and 13% gave a ranking of 4, and 1% did not respond.

The fifth question dealt with lawyers' interest in attending a law-related and civic education CLE workshop session. Over half of the respondents expressed interest in attending a law-related and civic education CLE workshop session.

As indicated in Table 6, the main goals for law-related and civic education in South Dakota chosen by the respondents were 1) to increase knowledge of the law and the judicial system (94%) and 2) to improve attitude toward laws and the judiciary (78%). Due to participants ability to choose more than one answer, the percentages do not equal 100%.

Question seven reflected respondents' involvement in specific LRE programs. Of the seven programs listed, none received a response rate of over 9%.

The eighth and ninth questions concerned the respondents' contact or use of the services of the South Dakota Center for Law and Civic Education (SDCLCE). Ninety percent (90%) of the respondents had never contacted or used the services of the SDCLCE.

"Have you ever been contacted by a teacher or educator to participate in law-related and civic education activities in the schools?" was the tenth question. Sixty-eight percent (68%) of the respondents had been contacted by educators, 22% had not been contacted, and 10% did not respond to this question.

Question eleven was a two-part question. The first part addressed the respondents' opinion regarding the need for improvement in South Dakota's law-related and civic education programs. Fifty-seven percent (57%) of the respondents said yes (indicating the need for improvement), 6% said no, and 37% did not respond.

The second part of question eleven was answered only by those respondents who answered affirmatively to part one. In this part of the question, respondents chose one or more specific areas which they considered needed improvement. The two areas most often chosen were 1) LRE curriculum development (47%) and 2) commitment from lawyers (42%). Table 11b provides a further breakdown of responses. Due to participants ability to choose more than one answer, the percentages do not equal 100%.

Question twelve asked, "In your opinion, how effective is South Dakota in meeting the need for law-related and civic education overall?". One percent responded Excellent, 21% responded Good, 31% responded Fair, 15% responded Poor, 22% were unaware, and 10% did not respond.

In question thirteen respondents were given names of six national LRE organizations and asked to indicate those which they had contacted or recognized. The American Bar Association Special Committee on Youth Education for Citizenship was the organization most frequently selected (24%). All other organizations had a response rate of less than 8%.

COMMENTS BY LAWYERS

The majority of the comments received concerned specific goals for law-related and civic education. The following is a sampling of the comments:

* A main goal should be to assist understanding that trial by combat is out and the evolution of our legal processes and civic processes are very important!
* We need increased citizen participation in government, elections, and the political process.
* Law related and civic education activities can help students relate the consequential effects of failing to abide by laws.
* One objective would be to increase willingness to participate in public life.
* I wish more people in the legal profession would get involved.
* This program appears to be unnecessary and probably detracts from the time students need to get a basic education.

DISCUSSION OF FINDINGS

Respondents considered the main goal for law-related and civic education in the state of South Dakota to be increased knowledge of the law and the judicial system. Moreover, a majority of the lawyers who responded to the questionnaire considered law-related and civic education to be an important part of the curriculum for South Dakota students.

While considered an important part of the curriculum, respondents indicated that law-related and civic education was more important at the junior high/middle school and high school levels than at the elementary school level. Both of these findings parallel Hardin's 1991 study (cited in Wolff, 1993) which reflected the elementary grade level to be the least important for teaching law-related and civic education.

Due to the significant Native American population in the state of South Dakota, the low ranking of importance given to the teaching about American Indian Tribal Law was surprising. This question may have been too ambiguous and therefore, it is difficult to reach a clear conclusion regarding this finding.

The lawyers surveyed did not appear to be aware of the national and

statewide law-related and civic education resources and organizations. Respondents indicated that they would attend a law-related and civic education session as part of their continuing legal education. This suggests an interest in learning more about law-related education and the available national and state resources and organizations.

The survey results showed that teachers and educators are contacting lawyers to participate in law-related and civic education activities in the schools. While this questionnaire did not investigate how often respondents participate in these activities, it did point out that educators are attempting to involve lawyers in their law-related and civic education activities.

Table 1

Years of Legal Practice

Response	Frequency of Response	Response Percentage
Less than 5 years	13	19%
6 to 15 years	25	37%
More than 15 years	26	38%
No response	4	6%

Table 2

Importance of Law-related and Civic Education

Category	Frequency of Rank*				
	1	2	3	4	No Response
Elementary School	6%	26%	29%	29%	10%
Junior Hi/Middle	0%	10%	32%	53%	5%
High School	0%	3%	19%	76%	2%

* Rank = 1 (Not Important) to 4 (Very Important)

Table 3

Importance of Having All South Dakota Students Learn About American Indian Tribal Law

Category	Response Percentage
Not Important	16%
Slightly Important	40%
Moderately Important	22%
Very Important	19%
No Response	3%

Table 4

Importance of Having Lawyers Attend a Continuing Legal Education Workshop Session About Law-related and Civic Education

Category	Response Percentage
Not Important	9%
Slightly Important	46%
Moderately Important	31%
Very Important	13%
No Response	1%

Table 5

Lawyers' Interest in Attending a Law-related and Civic Education Continuing Legal Education Workshop

Category	Response Percentage
Not Important	15%
Slightly Important	28%
Moderately Important	35%
Very Important	18%
No Response	4%

Table 6

Main Goals for Law-related and Civic Education in South Dakota

Category	Percentage
To increase knowledge of the law and the judicial system	94%
To improve attitude toward laws and the judiciary	78%
To improve community involvement with schools	47%
To improve the image of lawyers	47%
To give students opportunities to make decisions	46%
To be a positive, ego-building experience for students	24%
Other	4%

Note: Percentages will not equal 100% due to participants ability to choose more than one answer.

Table 7

Lawyers' Involvement in Selected Law-related Programs

Category	Percentage
We the People	9%
Consumer's Guide to South Dakota Law	7%
Drugs in the Schools: Exercises in Participation Series	6%
To Promote the General Welfare: The Purpose of Law	3%
Street Law: A Course in Practical Law	3%
Foundations of Freedom	0%
The Drug Question: The Constitution and Public Policy	0%

Note: Percentages will not equal 100% due to participants' ability to choose more than one answer or their non-involvement.

Table 8

Lawyers' Contact with the South Dakota Center for Law and Civic Education (SDCLCE)

Response	Frequency of Response	Response Percentage
Yes	2	3%
No	61	90%
No response	5	7%

Table 9

Lawyers' Awareness of services available through the SDCLCE

Response	Frequency of Response	Response Percentage
Yes	2	3%
No	61	90%
No response	5	7%

Table 10

Contact by Educators to Participate in Law-related and Civic Education Activities in the Schools

Response	Frequency of Response	Response Percentage
Yes	46	68%
No	15	22%
No response	7	10%

Table 11a

Need for Improvement in Law-related and Civic Education Program in South Dakota

Response	Frequency of Response	Response Percentage
Yes	39	57%
No	4	6%
No response	25	37%

Table 11b

Choice of Ways to Improve Law-related and Civic Education in South Dakota

Category	Percentage
LRE curriculum development	47%
Commitment from lawyers	42%
Commitment from school administrators	39%
LRE education/workshops for teachers	33%
Commitment from judges	32%
More LRE materials	26%
Other	2%

Note: Percentages will not equal 100% due to participants ability to choose more than one answer.

Table 12 South Dakota Effectiveness in Meeting the Need for Law-Related and Civic Education

Response	Frequency of Response	Response Percentage
Excellent	1	1%
Good	14	21%
Fair	21	31%
Poor	10	15%
Unaware	15	22%
No response	7	10%

Table 13

Lawyers' Awareness of Law-related Educational Organizations

Category	Percentage
The American Bar Association Special Committee on Youth Education for Citizenship	24%
Phi Alpha Delta Public Service Center	7%
Center for Civic Education/Law in a Free Society Project	3%
National Institute for Citizen Education in the Law	3%
Constitutional Rights Foundation	1%
Social Science Education Consortium	0%

Note: Percentages will not equal 100% due to participants ability to choose more than one answer or their lack of contact or recognition.

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